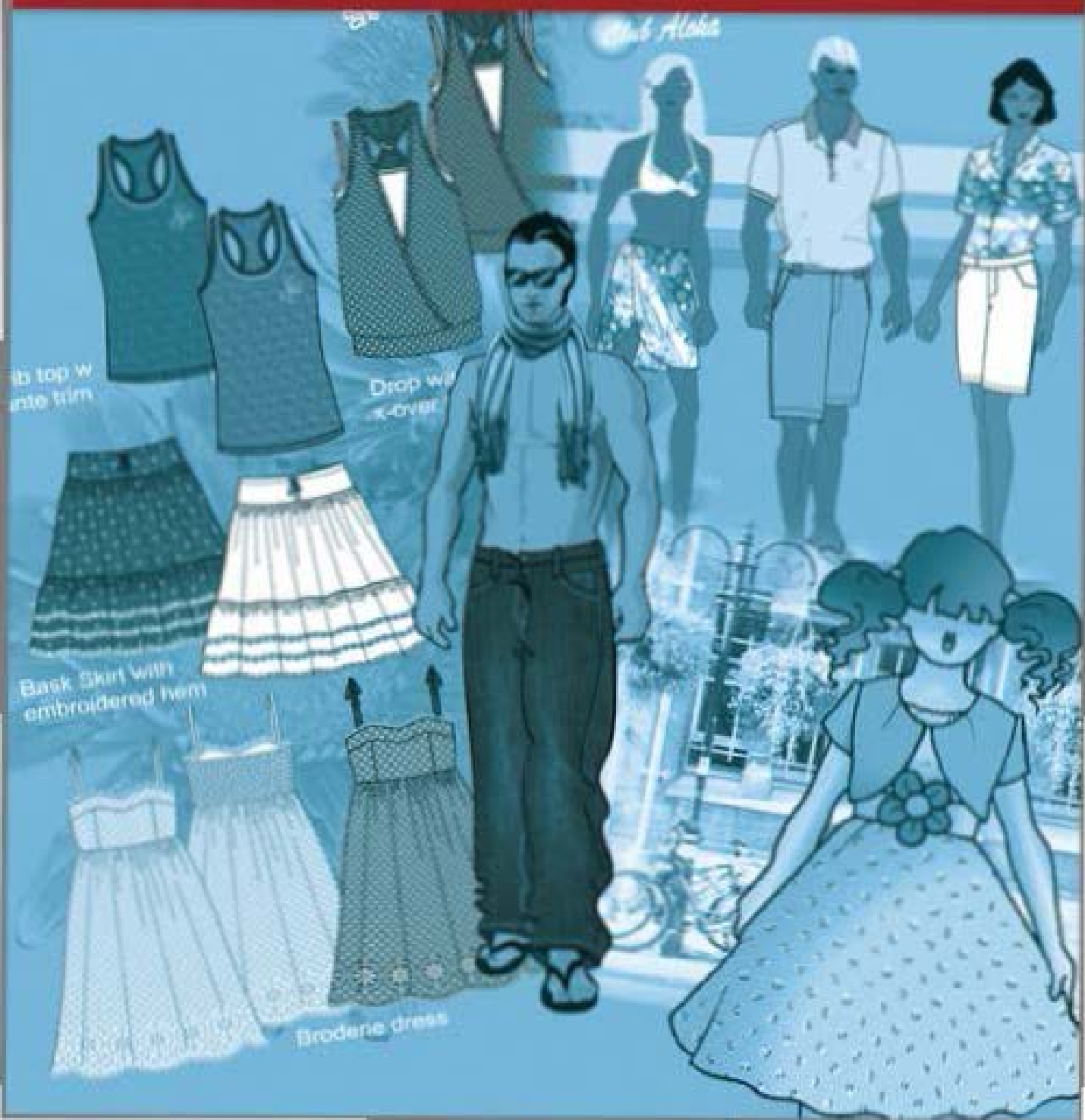
MARIANNE CENTNER AND FRANCES VEREKER

FASHION DESIGNER'S HANDBOOK FOR ADOBE ILLUSTRATOR

SECOND EDITION



Fashion Designer's Handbook for
Adobe Illustrator

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Fashion Designer's Handbook for

Adobe Illustrator

Second Edition

MARIANNE CENTNER | FRANCES VEREKER

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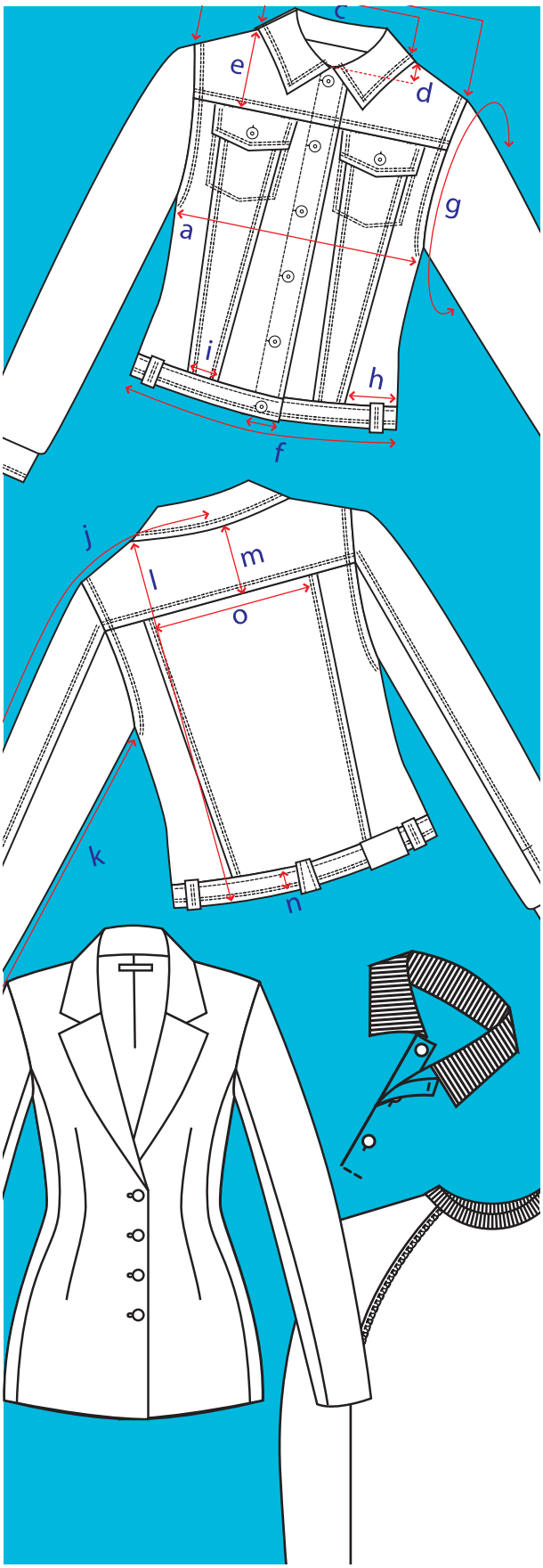
PREFACE



This book aims to teach fashion designers, both students and those in the industry, how to use **Adobe Illustrator®** to create technical drawings, fashion drawings and story boards and how to combine **Adobe Illustrator** and **Adobe Photoshop®**.

Through our own experiences of struggling with the complexities of these two vast and powerful Computer aided Design (CAD) programs, we realised that it would be fantastic if the needs of the clothing industry were addressed. To this end we have devised an outcomes-based instruction book that will clearly and methodically take you from creating a simple shape to a fashion drawing in **Adobe Illustrator** and **Adobe Photoshop**.

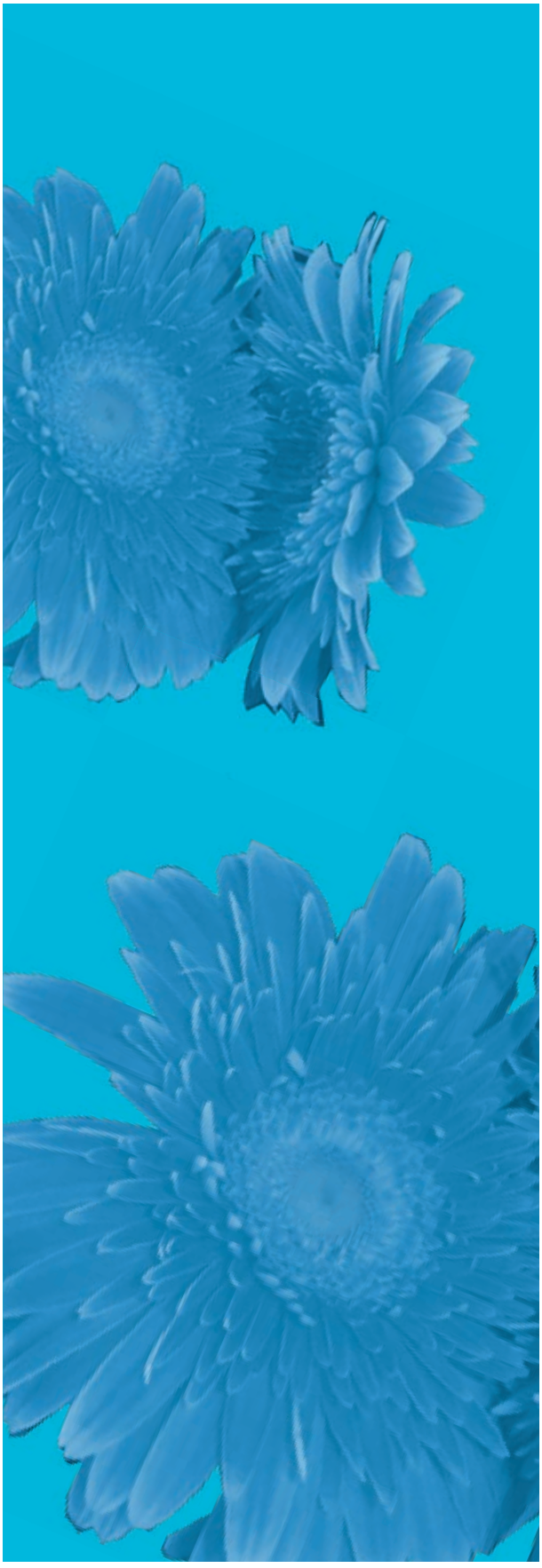
Our method is a culmination of Frances Vereker's extensive experience over the past 20 years teaching fashion drawing and computer drawing to students and teachers and Marianne Centner's vast industry experience over 25 years, working exclusively in Adobe Illustrator and Adobe Photoshop for a number of years. We expect that you will have basic computer knowledge and it is with this in mind that we have adopted a step-by-step approach.

The detailed instructions are thought out in such a way as to give you as much information as you need to perform the tasks throughout the book. We do not give too much information at one time. The method we have used will easily help you grasp the concept of **Adobe Illustrator** and vector drawing. This book will be a useful and ongoing quick guide until such time as you can remember the uses of all necessary tools. Once you have grasped the basic concepts we take you through increasing degrees of complexity, introducing you to more difficult techniques.

By the time you have finished this book we expect that you will have learned all the techniques necessary to produce professional story boards and technical drawings. The final chapter of story boards will further inculcate the techniques set out in this book.

It must be understood that what we demonstrate are methods that we use, they are not the only way to achieve results – considering the vastness of both applications. We believe when you have mastered our methods you will have the confidence to allow your own creativity to lead you to the best results. We encourage you to explore and experiment as much as we do!

ACKNOWLEDGEMENTS



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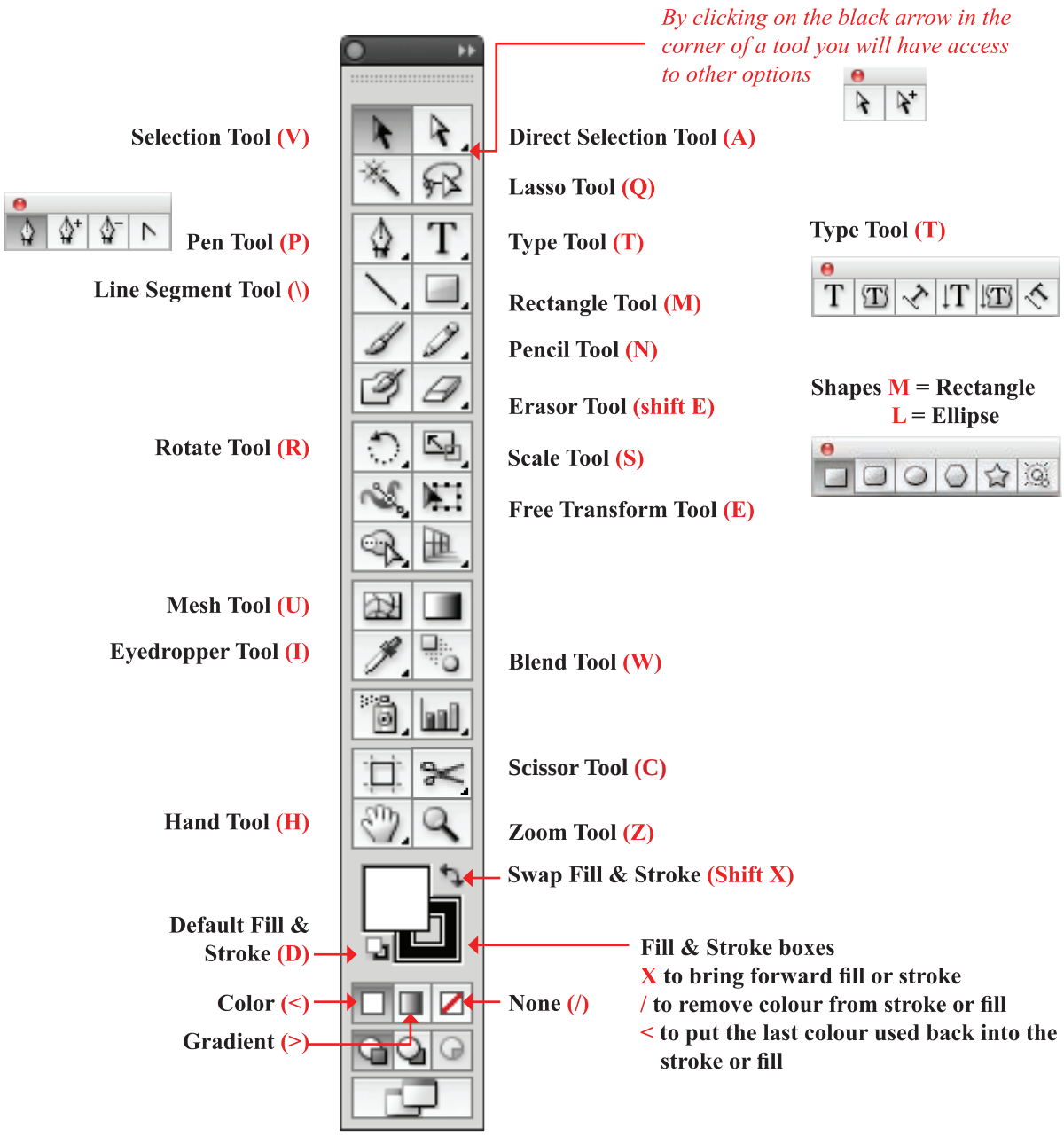
In the second edition we are very grateful to Claudia White our child model who posed so well for Kristy Purcell. Kristy Purcell – professional photographer, of *Kristy Jane Photography Design*, for her professional photograph of Claudia. Catherine Crothers for providing two photographs for the background of the final story boards.

We are thankful to Lesley Moir for her attention to detail and patience in assisting us in editing our manuscript.

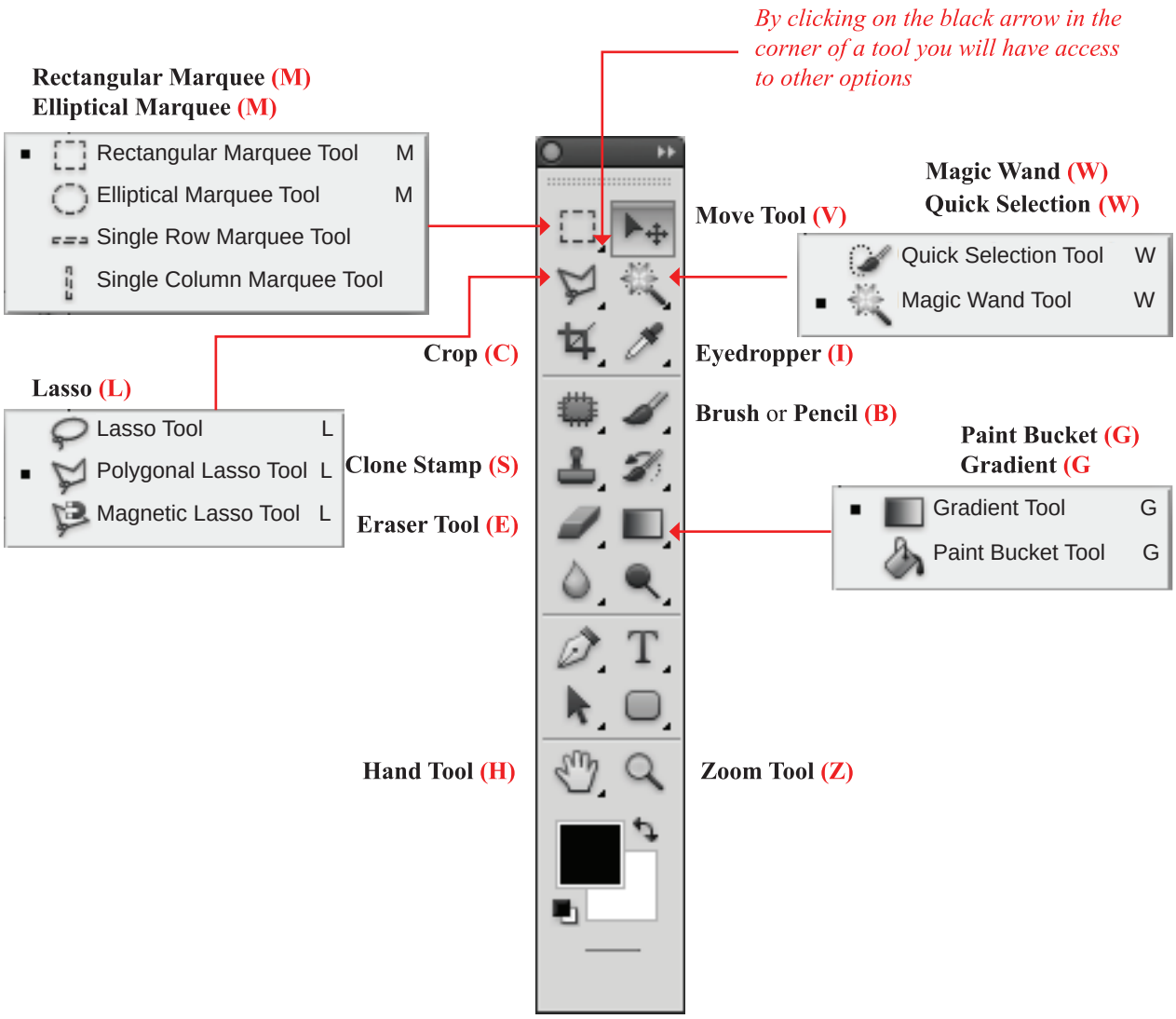
We also thank our families and friends for being so supportive during the frantic months of writing. Especially Jurek Tanewski and Catherine Crothers for their unfailing support and encouragment.

Lastly we would like to thank all our students who have used the first edition and have had valuable input into what we needed to expand on. This edition builds on the foundation of the first edition and expands on current methods and the new features in the latest programs.

ADOBE ILLUSTRATOR – QUICK REFERENCE TOOLS PANEL


By clicking on the black arrow in the corner of a tool you will have access to other options
Selection Tool (V)
Direct Selection Tool (A)
Lasso Tool (Q)
Pen Tool (P)
Type Tool (T)
Line Segment Tool (\)
Rectangle Tool (M)
Pencil Tool (N)
Erasor Tool (shift E)
Rotate Tool (R)
Scale Tool (S)
Free Transform Tool (E)
Mesh Tool (U)
Eyedropper Tool (I)
Blend Tool (W)
Scissor Tool (C)
Hand Tool (H)
Zoom Tool (Z)
Swap Fill & Stroke (Shift X)
Default Fill & Stroke (D)
Fill & Stroke boxes
X to bring forward fill or stroke
/ to remove colour from stroke or fill
< to put the last colour used back into the stroke or fill
Color (<)
None (/)
Gradient (>)
Type Tool (T)
Shapes M = Rectangle
L = Ellipse

THROUGHOUT THE BOOK ALL APPLE MACINTOSH OS COMMANDS WILL BE HIGHLIGHTED IN BLUE WHERE THEY ARE DIFFERENT TO PC COMMANDS. Please note that the Toolbox commands are the same for both Apple Macintosh and PC.



THROUGHOUT THE BOOK ALL APPLE MACINTOSH OS COMMANDS WILL BE HIGHLIGHTED IN BLUE WHERE THEY ARE DIFFERENT TO PC COMMANDS. Please note that the Toolbox commands are the same for both Apple Macintosh and PC.

ADOBE ILLUSTRATOR - QUICK REFERENCE

Adobe Illustrator Keyboard Shortcuts

Selection > V
Direct Selection > A
Undo > Ctrl Z/Cmd Z
Redo > Shift Ctrl Z/Shift Cmd Z

Pen > P
Add Anchor Point > +
Delete Anchor Point > -
Convert Anchor Point > Shift C
Pencil > N

Type > T
Type Tool Palette > Ctrl T/Ctrl T

Rectangle > M
Ellipse > L

Rotate > R

Hand > H
Hold down Space bar for Hand option
Zoom > Z
Zoom In > Ctrl +/Cmd +
Zoom Out > Ctrl -/Cmd -
Show/Hide All Panels > Tab
Show/Hide All But Toolbox > Shift Tab

New > Ctrl N/Cmd N
Open > Ctrl O/Cmd O
Close > Ctrl W/Cmd W
Save > Ctrl S/Cmd S
Save As > Shift Ctrl S/Shift Cmd S
Document Setup > Alt Ctrl P/ Alt Cmd P

Print > Ctrl P/ Cmd P

Select All > Ctrl A/Cmd A
Copy > Ctrl C/Cmd C
Paste > Ctrl V/Cmd V
Paste in Front > Ctrl F/Cmd F
Paste in Back > Ctrl B/Cmd B

Preferences > Ctrl K/Cmd K - Keyboard Increment
Transform Again > Ctrl D/Cmd D

Bring to Front > Shift Ctrl]/Shift Cmd]
Bring Forward > Ctrl]/Cmd]
Send Backward > Ctrl [/Cmd [
Send to Back > Shift Ctrl [/Shift Cmd [

Group > Ctrl G/Cmd G
Ungroup > Shift Ctrl G/ Shift Cmd G

Average > Alt Ctrl J/Alt Ctrl J
Join > Ctrl J/Ctrl J

Toggle between Fill & Stroke > X
Swap Fill/Stroke > Shift X
None > /

Exit a program > Ctrl Q/ Cmd Q

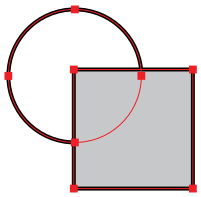
Keyboard Shortcuts Troubleshoot

As you work in Adobe Illustrator a few small things can happen if you accidentally press the wrong keys

1. If **Caps Lock** is activated you will not be able to see the symbols of some tools. For example, the **Pen Tool** ( ) will become an X, the **Eyedropper Tool** ( ) will look like the **Rotate Tool** ( ) and the **Rotate Tool** will just be a + symbol. If you want to see the symbols again, just de-activate **Caps Lock**
2. If you accidentally press **Shift Ctrl B/Shift Cmd B** you will activate the *'Hide Bounding Box'* option, which makes it difficult to scale and move objects. To de-activate this option go to **View** in the **Menu** bar

   ↓

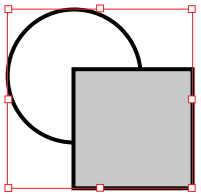
   Show Bounding Box (Ctrl B/Cmd B)



1. If you accidentally press **Ctrl H/Cmd H** you will activate the *'Hide Edges'* option, which hides the activated edge of an object and you cannot see anchor points or highlighted lines. To de-activate this option go to **View** in the **Menu** bar

   ↓

   Show Edges (Ctrl H/Cmd H)



Adobe Photoshop Keyboard Shortcuts

Move Tool > V

Rectangular Marquee > M
Elliptical Marquee > M

Magic Wand > W
Quick Selection > W
Lasso > L
Polygonal Lasso

Crop > C

Eyedropper > I

Brush or **Pencil > B**
Clone Stamp > S
Eraser Tool > E
Set the size of these four tools to a larger or smaller size by pressing the brackets keys, the left bracket > **]** for larger and the right bracket > **[** for smaller

Paint Bucket > G
Gradient > G

Undo > go to History panel *or for one move only:*
Undo > Ctrl Z/Cmd Z
Redo > Shift Ctrl Z/Shift Cmd Z

Free Transform > Ctrl T/Cmd T - Enter to finish

Hand > H
Hold down Space bar for Hand option
Zoom > Z

Show/Hide All Panels > Tab
Show/Hide All But Toolbox > Shift Tab

New > Ctrl N/Cmd N
Open > Ctrl O/Cmd O
Close > Ctrl W/Cmd W
Save > Ctrl S/Cmd S
Save As > Shift Ctrl S/Shift Cmd S

Print > Ctrl P/ Cmd P

Select All > Ctrl A/Cmd A
Deselect > Ctrl D/Cmd D
Copy > Ctrl C/Cmd C
Paste > Ctrl V/Cmd V

Preferences > Ctrl K/Cmd K - Keyboard Increment

Toggle between Foreground and Background > X

Exit a program > Ctrl Q/ Cmd Q

In both Adobe Illustrator and Adobe Photoshop there are many more shortcut keys. The ones we have highlighted are the ones we find ourselves using most frequently. You are also able to create your own shortcuts for actions you find yourself doing more frequently. Consult the help menu for this.

CHAPTER 1

THE BASICS

Drawing a Simple Shape

CHAPTER 1 outlines the difference between bitmap and vector images, the basics of file management and file paths, and the Adobe Illustrator tools that will be required to attain the objective of this book. There is a simple exercise at the end of this chapter.

- Vector and bitmap images 2
- Colour modes 3
- Open Illustrator, create and save a new file 4
- Customise work area ..... 5 – 6
- Workspace ..... 7 – 8
- Tools panel 9
- Tools:
  - Shape tools … ..... 10 – 11
  - Selection tools 12
  - Fill and stroke … 13
  - Manipulate objects … ..... 14 – 21
  - Pen tool: anchor points … 22
  - Draw lines and curves … ..... 23 – 26
- A simple exercise 27
  - Draw and reflect a simple shape 27
  - Move the shape and average 28
  - Join the shape 29
  - Troubleshoot join 30
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Note: some parts of headings and sub-headings may be summarised.

VECTOR AND BITMAP IMAGES

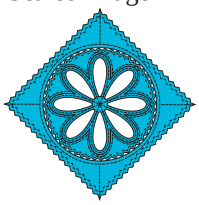
All computer images are either bitmap (raster) or vector images. Adobe Illustrator is a vector–based program and Adobe Photoshop is a bitmap–based program. Understanding the difference is fundamental to understanding Adobe Illustrator (AI).

Vector images:

Vector images are made of lines and curves defined by mathematical objects called vectors. A vector image is created with strokes and fills, points (known as *anchor points* in AI) are joined to create lines (known as *Paths* in AI) and lines are joined to create objects. Vector graphics maintain clarity when scaled, reduced or rotated.

Actual size of vector image

Scaled image



Rotated image

All images in Adobe Illustrator are created in vector, including type. A vector graphic is resolution independent. This means it can be scaled to any size and printed on any output device. The clarity of the image is dependent on the quality of the output device. This makes vector graphics the perfect format for creating detailed technical drawings and fashion illustrations.

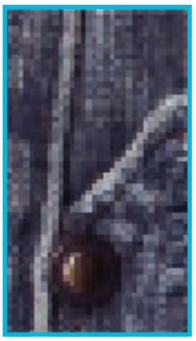
Bitmap images:

Bitmap images are made up of individual pixels. Pixels are defined by a grid – the amount of pixels in an image make up the overall 'dpi' of the image or the resolution of the image. 300 dpi means a resolution of 300 dots (or pixels) per inch. The higher the dpi, the higher the resolution, and subsequently the bigger the file. Most Internet pictures are 72 dpi or screen resolution. Most printed images will be 300 dpi or more.

Bitmap images distort badly when they are scaled, reduced or rotated – they lose detail. Bitmap images are good for reproducing subtle gradations of colour and air-brushing techniques. The final image has a softer, more realistic look than a vector image. We use bitmap images in this book to enhance story boards as well as to create realistic texture fills.

Bitmap image

Scaled bitmap image



Colour modes or colour models – a colour model is any method of representing colour in graphic arts. In graphic arts and printing, colours are often presented using the Pantone system. In computer graphics colours are represented in one of two modes RGB – Red, Green and Blue CMYK – Cyan, Magenta, Yellow and Black.

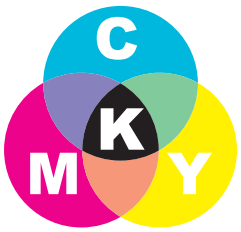
The choice of colour mode will depend on the end use of the graphics you are creating. If the work you are creating is going to be represented digitally – on the web or on computer – or it is going to be digitally printed, you will use RGB. If the work is going to be printed on a colour plate system CMYK will be used.

HSB – hue, saturation and brightness is not a colour model, but can be used when adjusting colours in RGB.

RGB is based on reflected light – the light that shines out from a monitor (computer or television). Red, blue and green are 'additive' colours and when they are combined the result is white. With **RGB**, what we see represented on the screen will be the closest match to what we see digitally printed.

CMYK is based on absorbed light – this is the colour model used when graphics are going to be printed on paper using a plate printing process. The medium (paper) that the colours are printed on absorbs the light and when these three colours are mixed the result is black, or 'K'.

Colours are created by mixing percentages of cyan, magenta and yellow. Ideally the three colours mixed in equal proportions will create black – this is constrained by the purity of the actual ink and black is added if dark colours cannot be achieved.



When only solid colours are used in a print that consists of one or two colours, Pantone process colours are used. These are called spot colours.

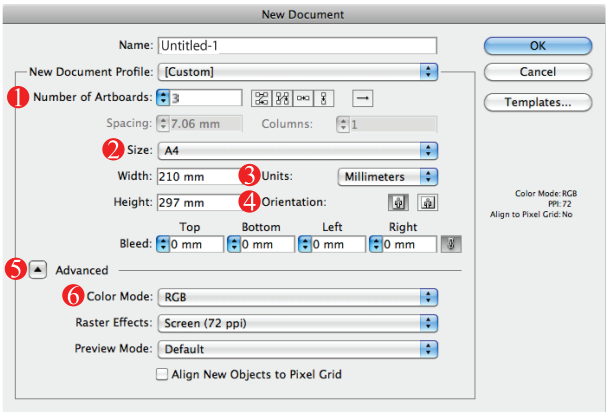
When many colours and fine gradients are required, four-colour process is the preferred printing method. Colours are created by printing dots of pure colour and black adjacent to each other; our eyes then mix these colours to produce the desired effect. Photographs are usually printed with this process.

Considering that the normal method of printing in the fashion industry is digital, we would recommend working in **RGB** colour mode.

OPEN ILLUSTRATOR, CREATE AND SAVE A NEW FILE

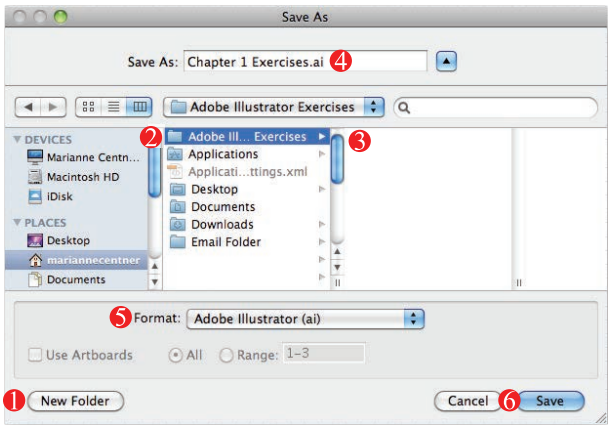
Open Adobe Illustrator:

- Click onto the **Adobe Illustrator** icon to open the program: Windows OS – Start up > All Programs > Adobe CS5 > Illustrator
  Apple OS – Applications > click onto the AI icon once and then again when the dialogue box opens



Step 1: Opening a New File

- Click onto **File** in the menu bar
  ↓
  New Ctrl N/Cmd N
- A dialogue box will appear
- ❶ Number of Artboards: **3**
- ❷ Size: **A4**
- ❸ Units: **Millimeters** (or whatever your preference is)
- ❹ Orientation: **Portrait (** **)**
- ❺ Click onto **Advanced** if necessary
- ❻ Color Mode: **RGB**
- **OK**

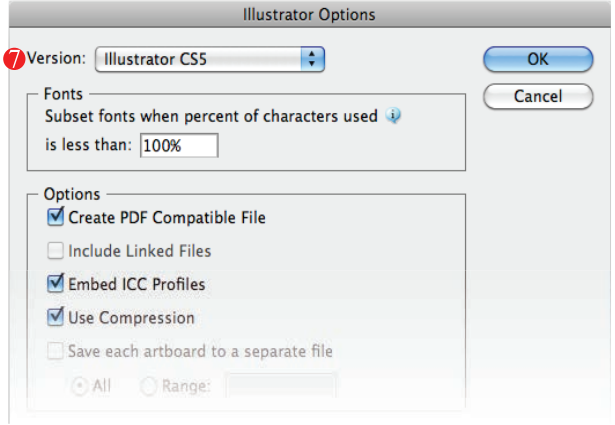


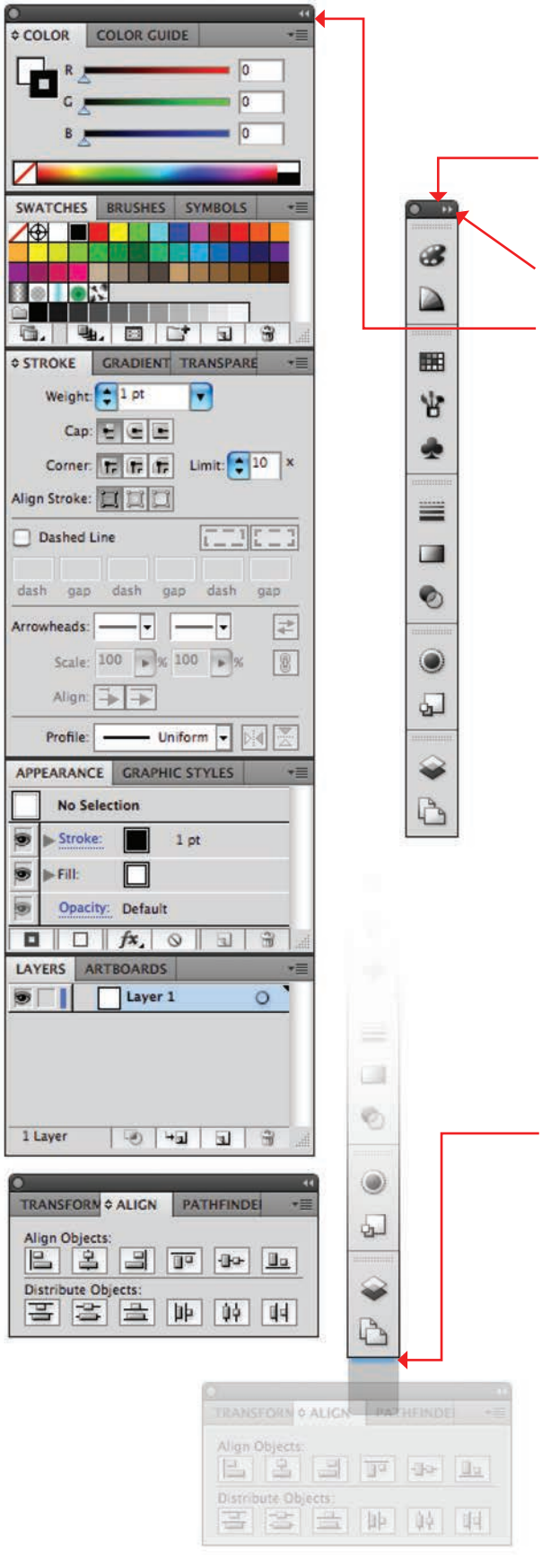
Step 2: Saving a New File

- Click onto **File** in the menu bar
  ↓
  Save File
- A dialogue box will appear
- Select where you will save the file
- ❶ Select **New Folder**
- ❷ Name the folder *'Adobe Illustrator Exercises'*
- ❸ Click onto the new folder to open the folder
- ❹ Type the new file name in the **Save As:** option *'Chapter 1 Exercises'*
- ❺ Format: **Adobe Illustrator (ai)**
- ❻ **Save** the file
- An **Adobe Illustrator** dialogue box will appear
- You have a choice of which version of Illustrator you want to save the file as
- ❼ It is advisable to save the work in the current version as information can be lost when saving to older versions
- If you are giving your work out to another artist it is important to know what version they need and save a copy to that version

Always keep the original version as a separate file!

*It is advisable to save the file you are working on every **10 minutes** if you can* **(Ctrl S/Cmd S).**





Step 3: Customise the Work Area

- The first time you open AI the work area will be set to '**ESSENTIALS**'
- A group of essential panels will be docked in the docking panel
- The panels open in **panel groups**; the groups are separated by a line in the docking panel
- The **panel groups** can be revealed by clicking onto the double arrow in the docking panel
- Conversely, clicking onto the double arrows of the open palettes will dock them again
- Clicking onto individual panels will just reveal that panel as a fly-out
- Selecting another panel will open that panel and the first selection will be re-docked

- You can add extra panels to the docking panel. For example, we always like to have the essentials plus the **Align/ Pathfinder** panel, the **Navigator** panel and the **Type** panel
- Click onto **Window** in the menu bar; a drop-down menu will appear
- Select the following panels:

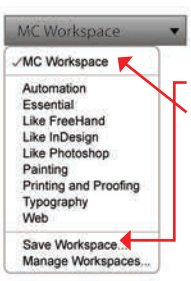
Align

Pathfinder is linked and will open at the same time as **Align**

Navigator

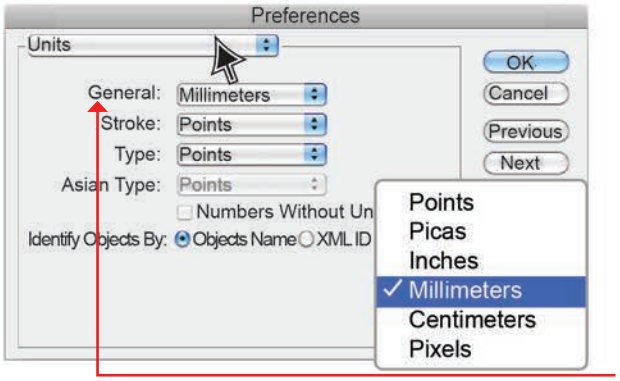
Type ⟶ **Character**

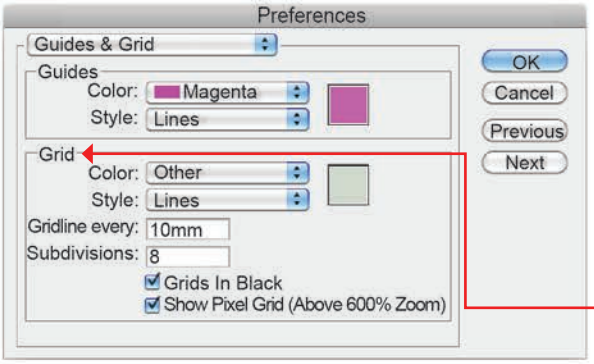
- The new panel can also be docked in the docking panel by clicking onto the title bar, holding the mouse down and dragging the panel to the docking panel
- When a faint blue line appears release the mouse and the panel will dock in that position
- This configuration can now be saved as a customised 'Workspace'
- Go to the top righthand side of the screen and you will see a window with a black down arrow in it

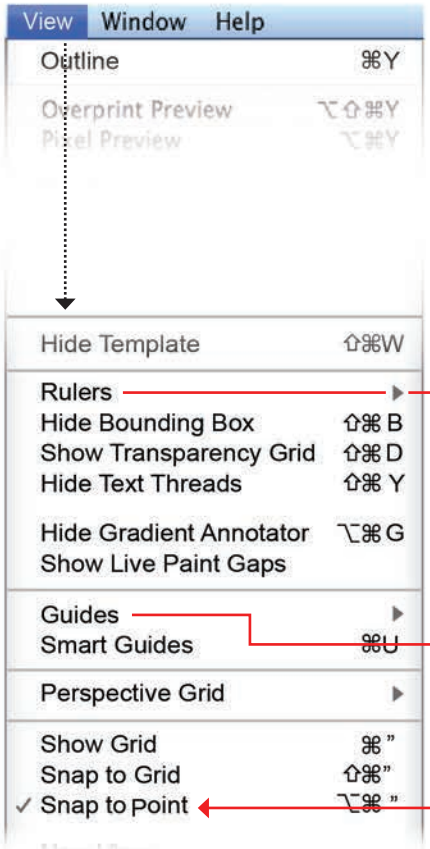


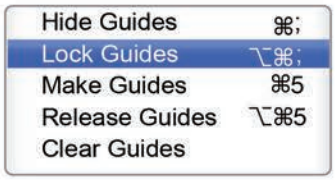
- Click onto this to reveal a drop-down menu
- **Save Workspace**
- Each time you open your program your workspace configuration will be there
- This will be unique to the computer you are working on

CUSTOMISE THE WORK AREA









Step 4: Customise the Work Area

The following may have to be done each time you start your computer. Always check to see if everything is as you want it.

- Click onto **Edit (PC)** or **Illustrator (Apple)** in the Menu Bar
  ↳ Select **Preferences (Ctrl K/Cmd K)**
- From the drop-down menu selection of the **Preferences** dialogue box select **Units**
- Change the units of measurement under **General** to your own preference; we work in **Millimeters**

*This now means that all objects you wish to have specific measurements for will be in **Millimeters.***

- Go back to the **Preferences** drop-down menu and select ⟶ **Guides & Grid**
- Here you can set your own preferences for **Guide** colours and line style as well as **Grid** colours and size
- We have set the **Grid** to have a strong line every **10 Millimeters** with **8** subdivisions every **Millimeter**
- **OK**

- Go to **View** in the menu bar to reveal the drop-down menu
- Click onto **Show Grid**

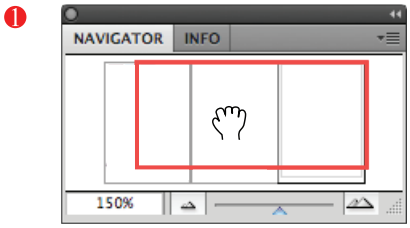
- While you are in this menu it would also be useful to select **Snap to point** (✓). You will have to go through **View** again

- Go to **View** in the menu bar
- Click onto **Rulers** ⟶ **Show Rulers**

- Go to **View** in the menu bar
- Click onto **Guides** ⟶ **Lock Guides** (✓)

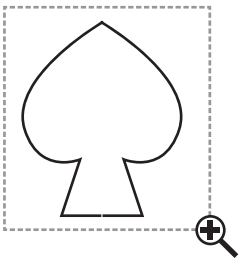
*Note: each new item in the **View** menu requires you to go back through **View** each time.*
*Your **Workspace** is now set up.*

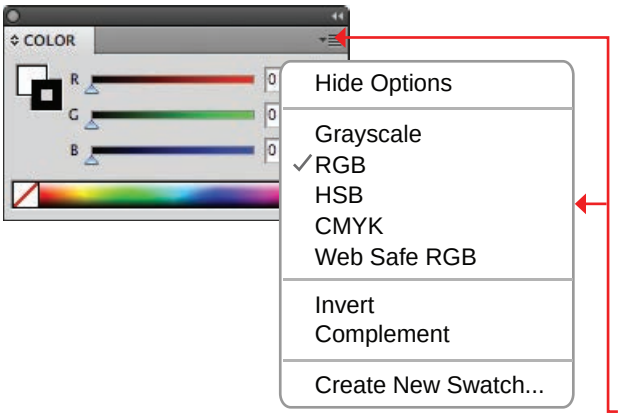
MOVING AROUND THE WORK AREA, PANEL DETAILS

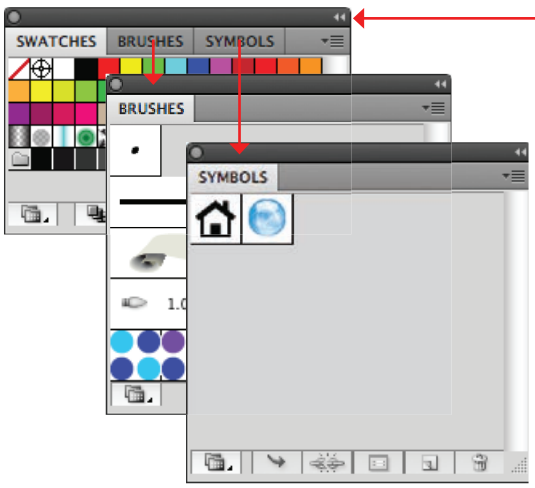


❷ & ❸

❹







Moving Around the Work Area:

Hand Tool (H)
Zoom Tool (Z)

There are a few ways of moving or ***'Navigating'*** *around the work area.*

❶ Using the **Navigator Panel**, you can either click onto the actual image of the work area and move that, or move the slider at the bottom of the panel to zoom in and out. The red frame represents where the screen view is cropped

❷ Pressing the space bar and the mouse at the same time will allow you to move with ease around the work area – we find this the best method as it can be done in the middle of doing another task and not interfere – the hand forms a fist when you move

❸ Selecting the **Hand Tool (H)** in the **Tools Panel**, click onto the work area and hold down the left mouse button. Double-clicking the **Hand** symbol in the **Tools Panel** will give you a full view of the **Artboard**. The **Hand Tool** needs to be de–activated by selecting the **Selection Tool (V)** when you do not need it

❹ Selecting the **Zoom Tool (Z)** and dragging a 'marquee'* over the area you want to zoom up to

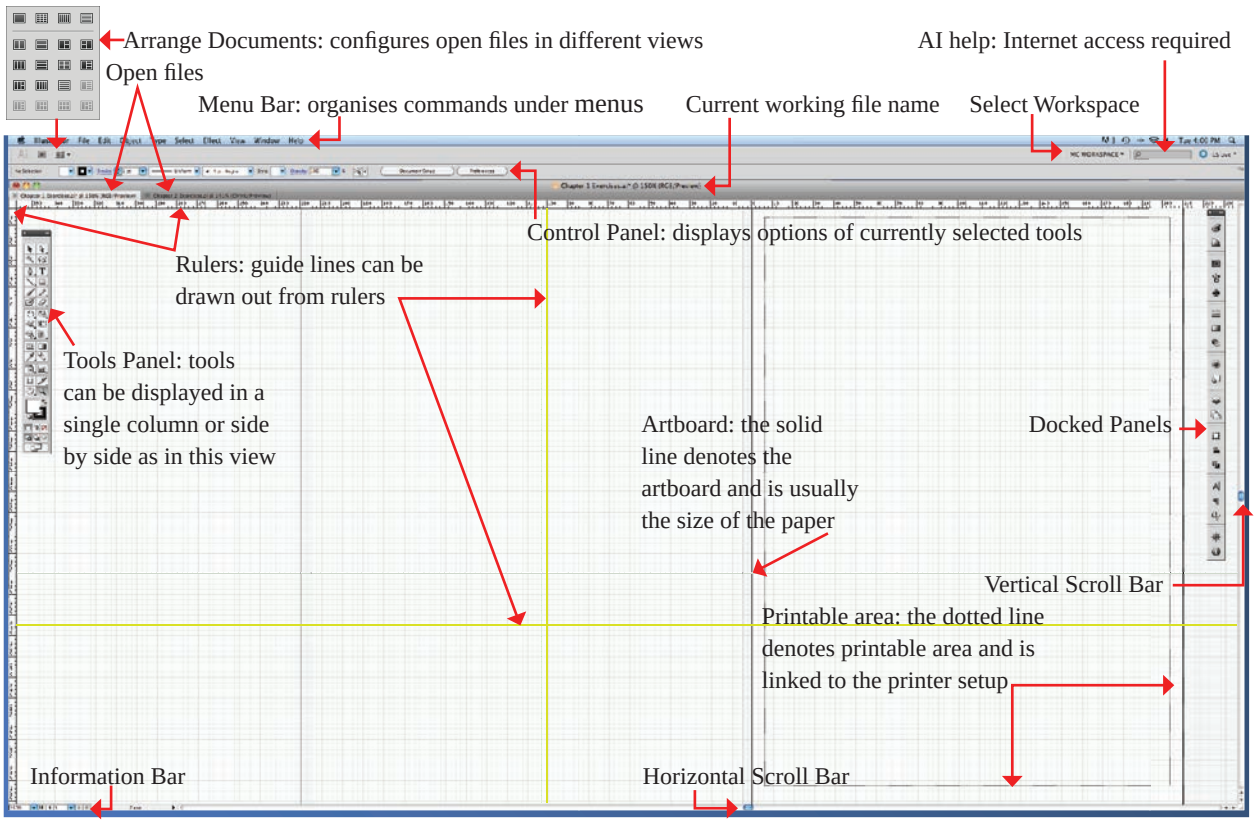
❺ Using the keyboard shortcuts **Ctrl +/Cmd+** and **Ctrl–/Cmd–** to zoom in and zoom out

Panel Details:

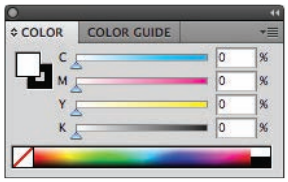
- All panels will have other **'Options'** in the panel. You can reveal those options by clicking onto the down arrow in the righthand corner of the panel
- *Panel groups* can also be separated by clicking onto each individual panel and dragging it out of the group

** Marquee – this term is used when we refer to the movement of holding the left mouse button down and dragging the mouse over an area you wish to either* ***Zoom*** *into or to* ***Select*** *with the relevant tool.*

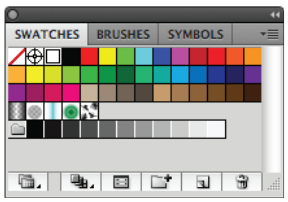
OPEN FILE WITH CUSTOMISED WORKSPACE


Arrange Documents: configures open files in different views
Open files
Menu Bar: organises commands under menus
Current working file name
Select Workspace
AI help: Internet access required
Control Panel: displays options of currently selected tools
Rulers: guide lines can be drawn out from rulers
Tools Panel: tools can be displayed in a single column or side by side as in this view
Artboard: the solid line denotes the artboard and is usually the size of the paper
Docked Panels
Vertical Scroll Bar
Printable area: the dotted line denotes printable area and is linked to the printer setup
Information Bar
Horizontal Scroll Bar

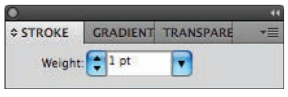
Open Panels:



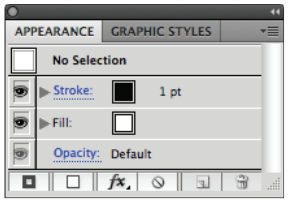
Color Panel: gives you the option to select colour modes and to edit colours
Color Guide: this will show you the tints, shade and hue of the selected colour



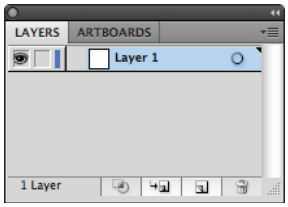
Swatches Panel: this panel stores colour swatches, pattern swatches and gradient swatches. **Brushes** and **Symbols Panels** are linked



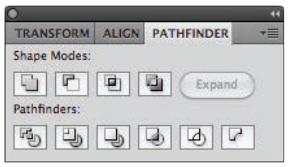
Stroke Panel: this panel allows you to change the size and type of stroke as well as add arrowheads. **Gradient** and **Transparency** are linked



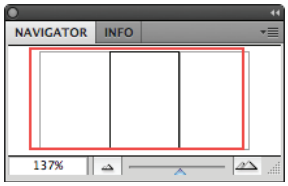
Appearance Panel: this panel is informative about a selected object and enables you to edit components of the object



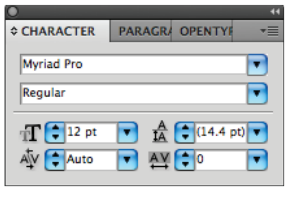
Layers Panel: shows how many layers are in this file
Artboard Panel: gives you the option to add and delete artboards



Align Panel: gives you the option to align and space objects
Pathfinder Panel: enables you to cut, divide and merge shapes

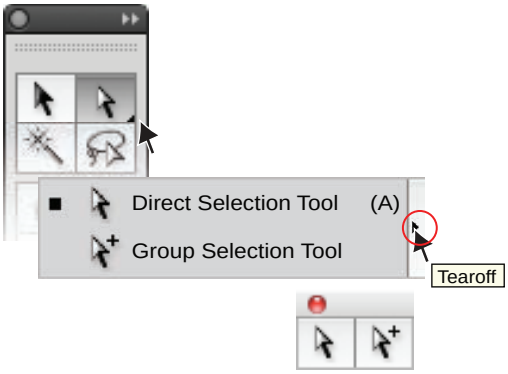


Navigator Panel: enables you to navigate around the specified work area
Info Panel is linked to this



Type Panel: this panel has options to change the font and font size. **Character** and **Paragraph** are linked panels

*The following is an identification of the different tools in the **Tools Panel** and where we apply the tools in this book. Please note only tools demonstrated in this book are represented.*



- You may have noticed a small triangular black arrow on the corner of some tools – this indicates that there are hidden tools under that symbol
- Rest the cursor on that arrow and click
- The hidden tools will be revealed. Holding the mouse down, drag the cursor until it reaches the arrow at the end of the tools and the pop up sign *'Tearoff'* appears
- Release the mouse and a mini panel with the hidden tools will appear
- All **Bold Text** tools are the **Default** tools

Selecting Tools:

Selection Tool (V)

Direct Selection Tool (A)

Group Selection Tool

Lasso Tool (Q)

Drawing Tools:

Pen Tool (P)

Add Anchor Point (+)

Delete Anchor Point (–)

Convert Anchor Point (shift C)

Line Segment Tool (\)

Rectangle Tool (M)

Rounded Rectangle

Elipse Tool (L)

Polygon Tool

Pencil Tool (N)

Eyedropper Tool (I)

Measure Tool

Mesh Tool (U)

Transforming Tools:

Rotate Tool (R)

Reflect Tool (O)

Scale Tool (S)

Free Transform Tool (E)

Blend Tool (W)

Type Tools:

Type Tool (T)

Area Type Tool

Type On A Path Tool

Cutting & Erasing Tools:

Erasor Tool (shift E)

Scissor Tool (C)

Path Erasor Tool (Located under 'Pencil' Tool)

Moving, Zoom & Page Set–up Tools:

Hand Tool (H)

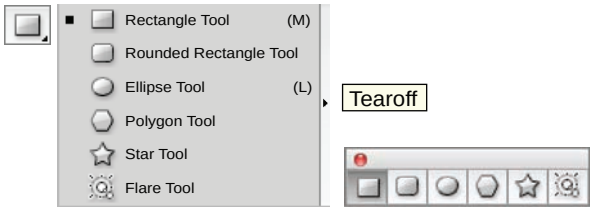
Zoom Tool (Z)

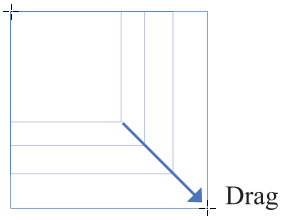
Artboard Tool (Shift O)

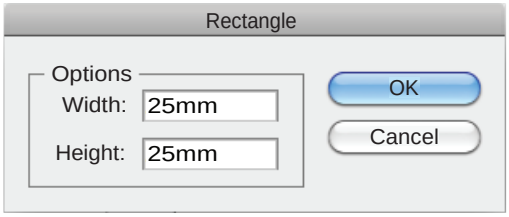
To start we will draw a few shapes:

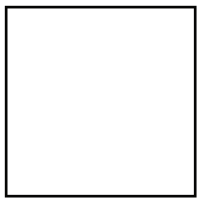
We suggest you follow the same layout as on pg 34, the summary at the end of Chapter 1.

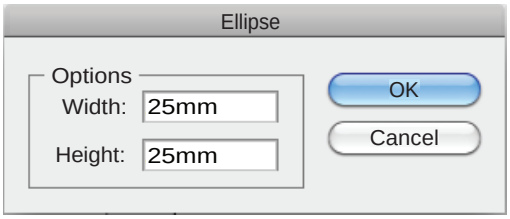
- Click onto the **Rectangle Tool** and *Tearoff* the shape tool options

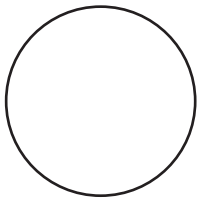












Shape Tools:

Rectangle Tool (M)
Ellipse Tool (L)

Rounded Rectangle Tool, Polygon Tool and **Star Tool –** No keyboard shortcuts for these shapes

- There are five different shapes – **Rectangle, Rounded Rectangle, Ellipse, Polygon** and **Star**
- Start drawing a **Rectangle** on the first page, i.e., the first page on the lefthand side

Drawing a Rectangle:

- The fill box and stroke boxes will have the *'default'* colours in them ( )
- Click onto the **Rectangle Tool (M)** in the **Tools Panel**
- Click onto the first page in the work area and without releasing the mouse drag the mouse into a **Rectangle**
- Holding the **Shift** key while dragging will create a rectangle with even sides – i.e., a square

Or:

- Click onto the **Rectangle Tool**
- **Left** mouse click onto the working area
- An option box will appear
- Type the **Width** and **Height** you require in this box
- Select **OK**

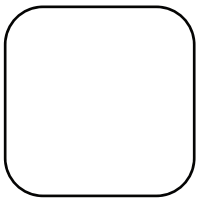
Drawing an Ellipse:

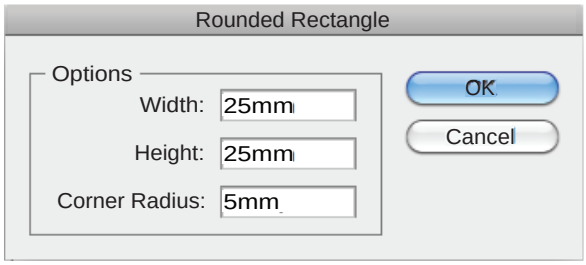
- Click onto the **Ellipse (L)** in the Tools Panel
- Click onto the work area and without releasing the mouse drag the mouse into an **Ellipse**
- Holding the **Shift** key while dragging will create a circle

Or:

- Click onto the **Ellipse Tool**
- **Left** mouse click onto the working area
- An option box will appear
- Type the **Width** and **Height** you require in this box
- Select **OK**

To Undo an action... ***Ctrl Z/Cmd Z***
To Re-do an action... ***Shift Ctrl Z/Shift Cmd Z***



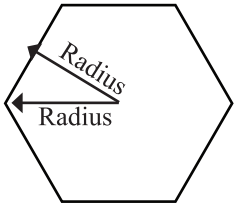


Drawing a Rounded Rectangle:

- Click onto the **Rounded Rectangle Tool** in the Tools Panel
- Click onto the work area and without releasing the mouse drag the mouse into a **Rounded Rectangle**
- Holding the **Shift** key while dragging will create a rounded rectangle with even sides – a square

Or:

- Click onto the **Rounded Rectangle Tool**
- Left mouse click onto the working area
- An option box will appear
- Type the **Width, Height** and **Corner Radius** required in this box
- Select **OK**

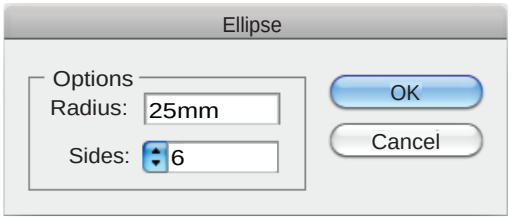


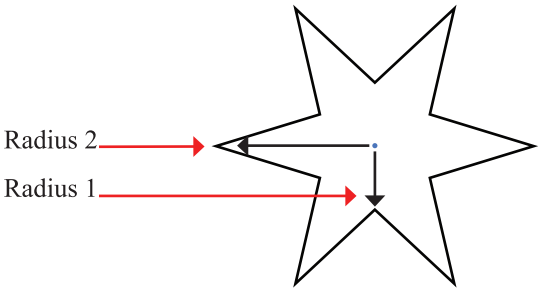
Drawing a Polygon:

- Click onto the **Polygon Tool** in the Tools Panel
- Click onto the work area and without releasing the mouse drag the mouse into a **Polygon**
- Holding the **Shift** key while dragging, keep the orientation of the polygon straight

Or:

- Click onto the **Polygon Tool**
- Left mouse click onto the working area
- An option box will appear
- Type the **Radius** and quantity of sides required in this box
- Select **OK**



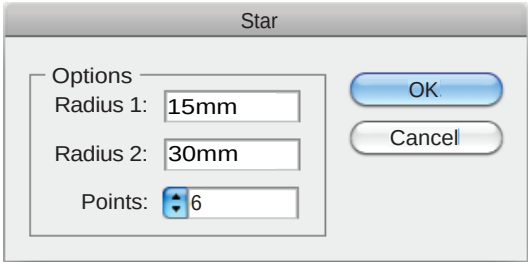


Drawing a Star:

- Click onto the **Star Tool** in the Tools Panel
- Click onto the work area and without releasing the mouse drag the mouse into a **Star**
- Holding the **Shift** key while dragging, keep the orientation of the star straight

Or:

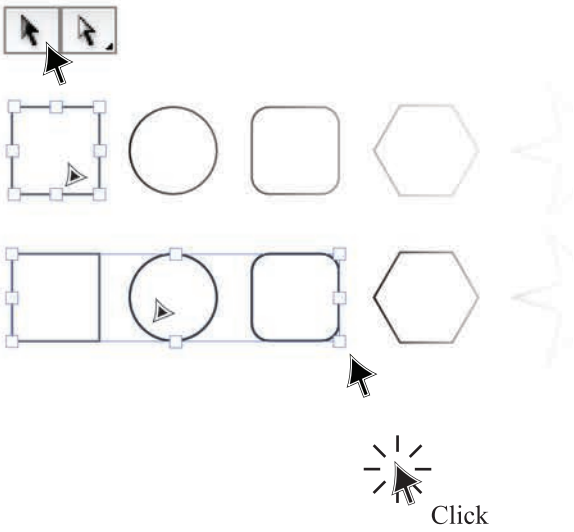
- Click onto the **Star Tool**
- Left mouse click onto the working area
- An option box will appear
- Type **Radius 1** and **2** and the quantity of **Points** required in this box
- Select **OK**



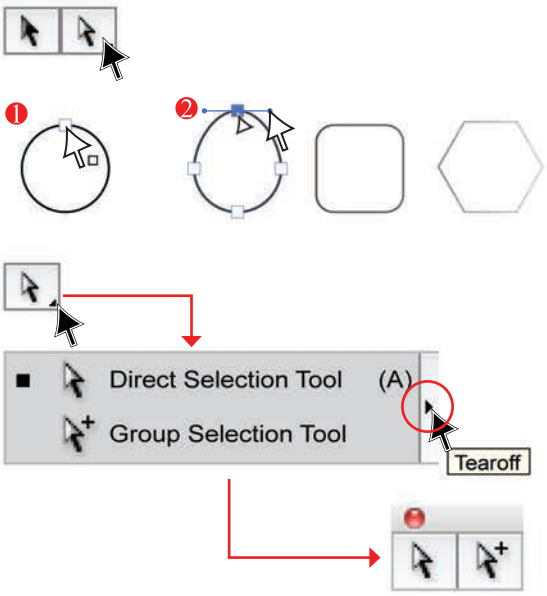
SELECTION TOOLS

Selection Tools:

Selection Tool (V)
Direct Selection Tool (A)
Group Selection Tool (No keyboard shortcut)



- Move the cursor over the **Selection Tool (V)** and click onto the tool
- The **Selection Tool** enables you to pick up and move single objects
  Or a '*group*' of objects:
- Marquee over three of the objects with the **Selection Tool (V)**
- Right click the mouse
- A sub-menu will appear
- Select **Group**
- Or simply press **(Ctrl G/Cmd G)** and the objects will be grouped together
- Click onto one of the objects, hold the left mouse button down and move them. The whole group will move like one object
- Click away to deselect

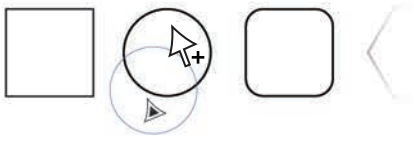


- The **Direct Selection Tool (A)** enables you to pick up and manipulate **anchor points** and **handles**

❶ Rest the **Direct Selection Tool (A)** at the top of the ellipse – when the cursor rests on the anchor point, the indicator of the **anchor point** will appear

❷ Once you click onto the **anchor point** the **handles** are activated and can be manipulated

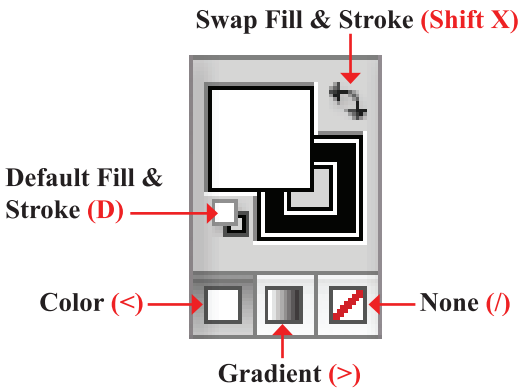
- Click onto the black arrow at the corner of the **Direct Selection Tool (A)** to access the **Tearoff** options. This will reveal the **Group Selection Tool**



- This tool enables you to pick up and move single objects from *within* a group of objects. There is no keyboard shortcut for this tool

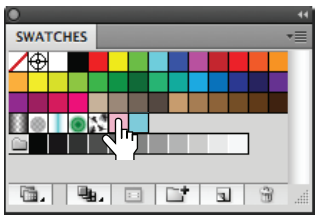
- Click away to deselect

Fill and Stroke:
Keyboard Shortcut **X** toggles between **Fill** and **Stroke**

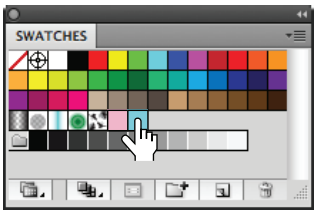


Fill – the solid area within a shape
Stroke – the outline around a shape

- Draw a rectangle with the default fill and stroke colours and stroke width ( )
- To activate either the **Fill** or the **Stroke,** click onto the required box and that box will appear at the front
- Clicking onto a colour in the **Swatches** panel will change the colour to the new colour in the fill or the stroke
- The fill box is in front
- You can now change the fill colour



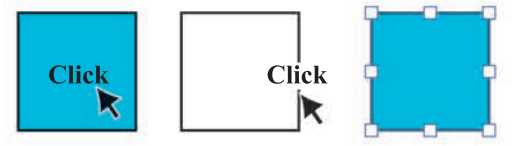
- **(X)** will bring the stroke to the front
- You can now change the stroke colour



- To 'swap' the fill and stroke colours click onto the corner arrows ( ) or **Shift X**
- This will transpose the fill and stroke colours

- To remove the colour completely click onto the **None** box (in the **Swatches** panel or in the **Tools Panel** or press the forward slash key **(/)** and the colour will be removed

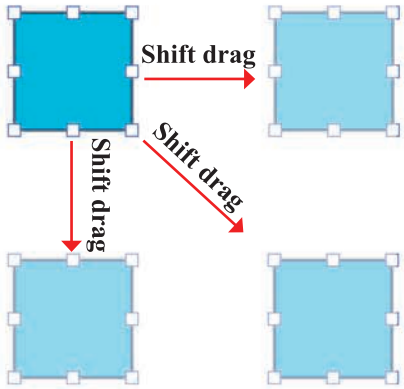
SELECT AND MOVE AN OBJECT



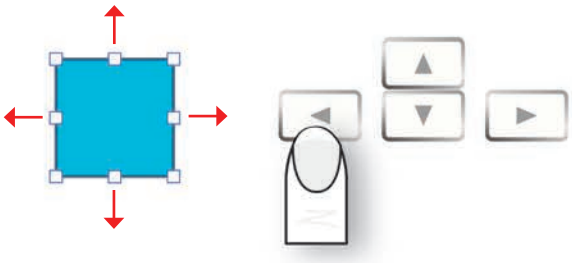
Selecting an Object:

Selection Tool (V)

- Click onto the centre of a filled object or the stroke or outline of an object without fill with the **Selection Tool (V)** to select the object



- **Move an Object:**
- Holding down the left mouse button drag the selected object
- Holding down **Shift** after selecting and starting to drag the object will move the object in a straight vertical or horizontal line or at an angle of 45˚



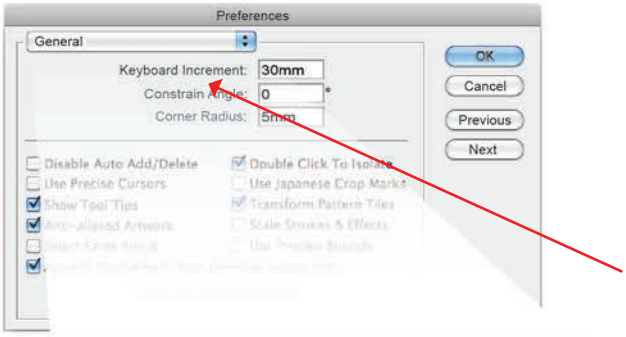
Or:

- Select object with **Selection Tool (V)**
- Using the direction arrows on the keyboard will nudge objects left, right or up and down the distance that the **Keyboard Increment** in **Preferences** is set at

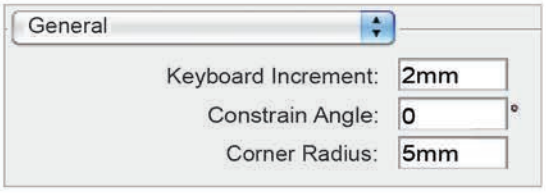
- **To Set Keyboard Increment:**
- Click onto **Edit (PC)** or **Illustrator (Apple)** in the menu bar

Select **Preferences**

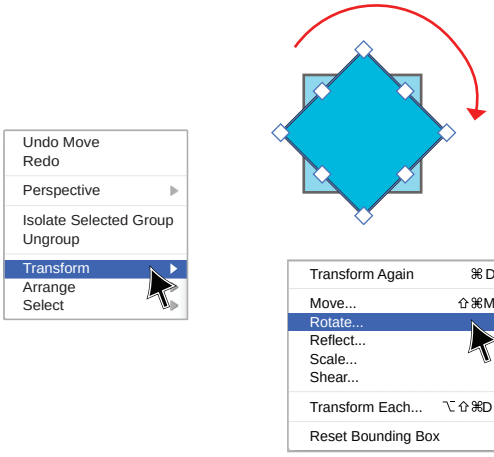
General (Ctrl K/Cmd K)

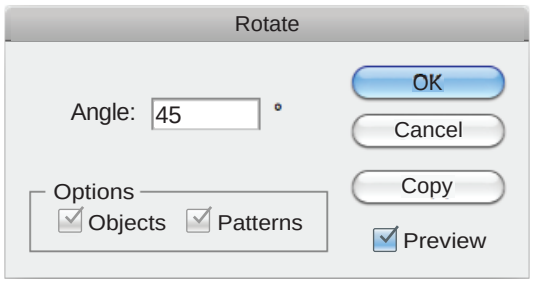


- Go to **Keyboard Increment**



- Type measurement into the white box – **30mm**
- Select **OK**
- This will move the selected object by **30mm**





Rotate an Object:

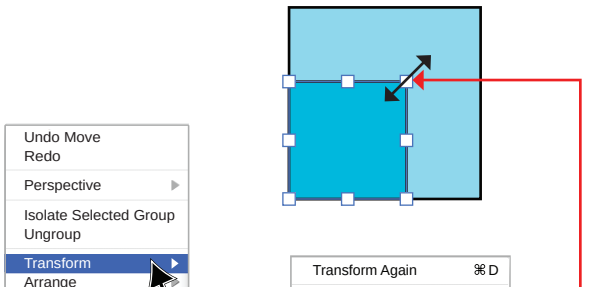
Selection Tool (V)
Rotate Tool (R)

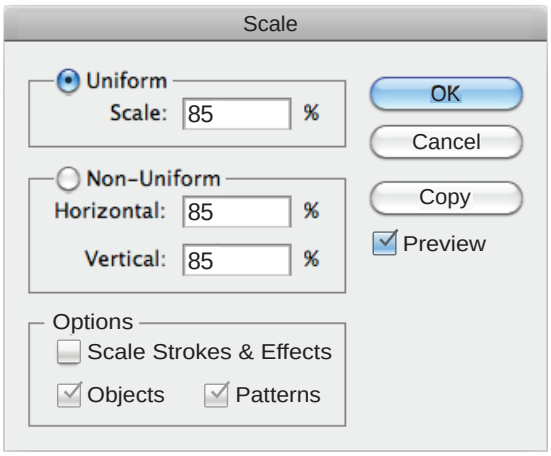
- Select the object with the **Selection Tool (V)**
- Select the **Rotate Tool (R)**
- Holding down the left mouse button, move the mouse in the intended direction of rotation
- To rotate the object at a **90°**, **180°** or **45°** angle press the **Shift** key after you have started to drag the object

Or:

- Select the object with the **Selection Tool (V)**
- Right click the mouse and a sub-menu will appear; select **Transform → Rotate**

- Alternatively double click the **Rotate Tool** symbol ( ) in the **Tools Panel**
- Type in the degree of rotation required, that is **45°**
- Select **OK**





Scale an Object:

Selection Tool (V)
Scale Tool (S)

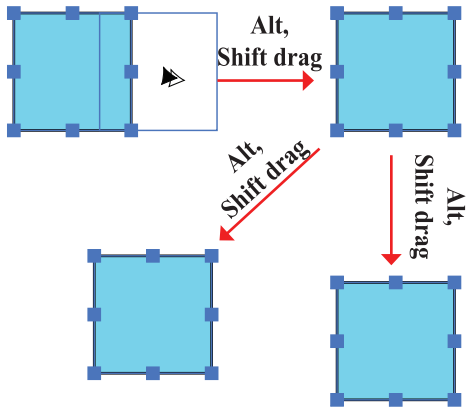
- Select object with **Selection Tool (V)**
- Place cursor at any of the bounding box anchor points ( )
- An arrow (↔) will appear
- Dragging the mouse in any direction will randomly scale the object
- Holding down the **Shift** key when dragging will proportionately scale the object

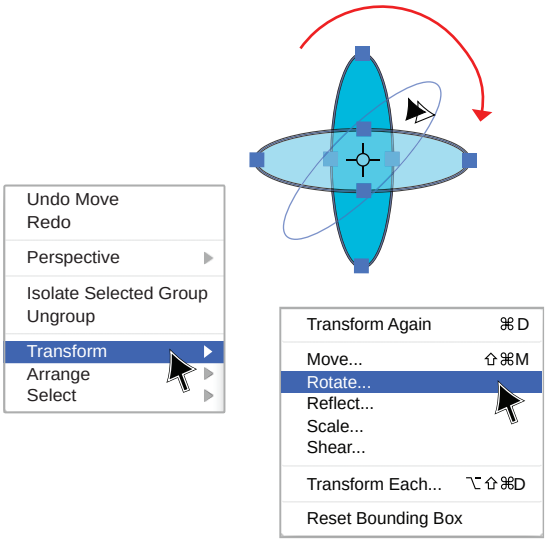
Or:

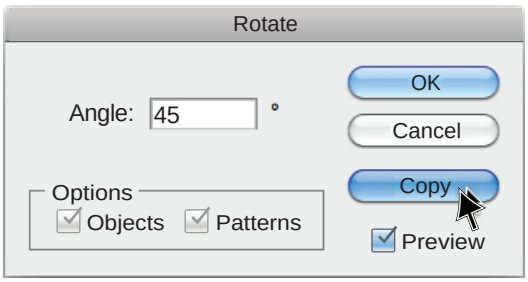
- Right click the mouse
- A sub-menu will appear
- Select **Transform → Scale**

- Alternatively double click the **Scale Tool** symbol ( ) in the **Tools Panel**
- Type in the percentage of transformation required
- Tick ( ) the preview box to preview the action
- Select **OK**

COPY AND ROTATE COPY AN OBJECT







Copy an Object:

Selection Tool (V)

- Select the object with the **Selection Tool (V)**
- Holding down the left mouse button, start to drag the object and press the **Alt/Option** key, a double arrow will appear **(⮞)** showing you that the selected object is being copied
- To copy the object in a **90°**, **180°** or **45°** angle, press the **Shift** key at the same time as the **Alt/Option** key *after* you have started to drag the object

Or:

- Select the object with the **Selection Tool (V)**
- Copy the object:
  Ctrl C/Cmd C – to copy
  Ctrl F/Cmd F – copies the object to the **F**ront
- Use direction arrows on keyboard to move the object left, right, up or down
- This will move the object the distance that the **Keyboard Increment** in **Preferences** is set at **(30mm)**

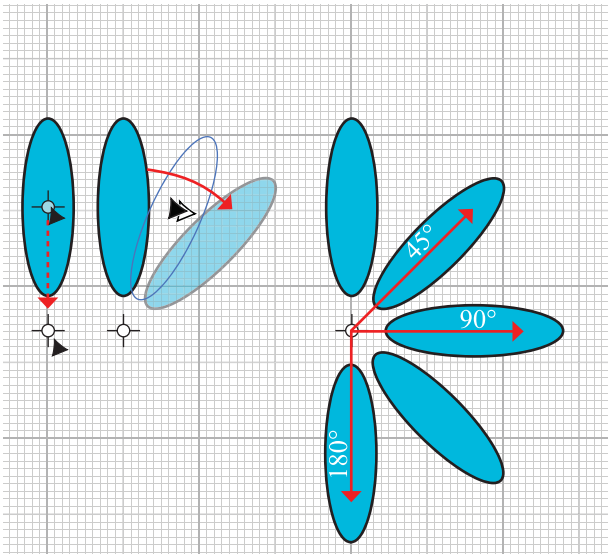
Rotate Copy an Object:

Selection Tool (V)
Rotate Tool (R)

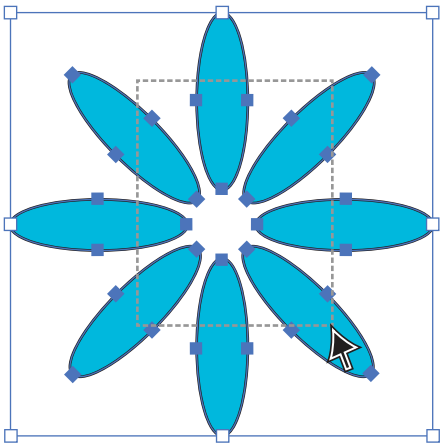
- Select the object with the **Selection Tool (V)**
- Click onto the **Rotate Tool (R)**
- Holding down the left mouse button, start to drag the object and press the **Alt/Option** key at the same time. A double arrow will appear (⮞)
- To copy and rotate the object at a **90°**, **180°** or **45°** angle, press the **Shift** key at the same time as the **Alt/Option** key after you have started to drag the object

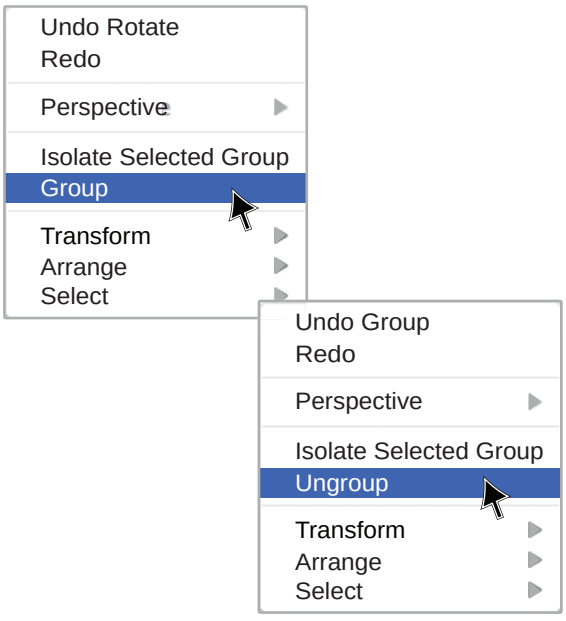
Or:

- Right click the mouse; a sub–menu will appear
- Select **Transform ⟶ Rotate**
- Type in the percentage of rotation required
- Click onto the **Preview** box (☑) to preview the action and **Copy**



To Undo an action... ***Ctrl Z/Cmd Z***
To Re-do an action... ***Shift Ctrl Z/Shift Cmd Z***





Rotate Copy an Object (cont'd):

Selection Tool (V)
Rotate Tool (R)

1. Select the object with the **Selection Tool (V)**
- Click onto the **Rotate Tool (R)**
- Place the cursor on the rotate centre point (⊹), hold down the left mouse button and drag the centre point to a new position
- Release, but *do not* deselect the object
2. Holding down the left mouse button, start to drag the object and press the **Alt/Option** key. A double arrow will appear (⮞)
- To copy and rotate the object at a **90°**, **180°** or **45°** angle, press the **Shift** key at the same time as the **Alt/Option** key

Group Objects:

Selection Tool (V)
Group Selection Tool (No keyboard shortcut)

- Marquee over all the objects to be grouped with the **Selection Tool (V)**

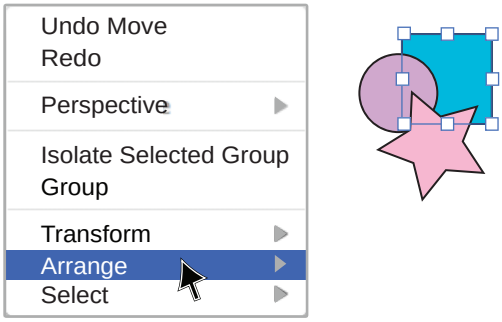
*Note: Using the **Selection Tool** you need only marquee over a small section of an object to select it. See the illustration–the marquee area is denoted with a dotted line.*

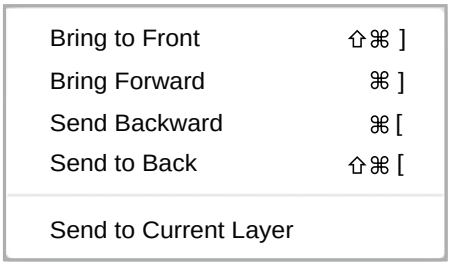
- Right click the mouse
- A sub-menu will appear
- Select **Group**
- Or simply press **(Ctrl G/Cmd G)** and the objects will be grouped

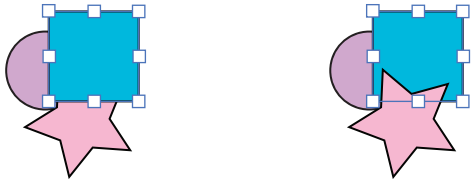
*The objects can now be moved as one object or if part of the object needs to be moved but still remain part of the group, you can use the **Group Selection Tool** (⮞+).*

- Conversely, to **Ungroup** the objects:
- Click onto the grouped object with the **Selection Tool (V)**
- Right click the mouse; a sub-menu will appear
- Select **Ungroup** or simply press **Shift Ctrl G/Shift Cmd G** and the objects will be ungrouped

ARRANGE THE LAYER ORDER OF OBJECTS







Arranging the Layer Order of Objects:

Rectangle Tool (M)
Ellipse Tool (L)
Star Tool (No keyboard shortcut)
Selection Tool (V)

- Draw a blue square, a lilac circle and a pink star with the **Shape Tools**. Ref page 13 for colour changes

When objects are drawn in Adobe Illustrator they are arranged in layers according to the order in which they have been drawn. That is: in the first illustration we can see that the square was drawn before the circle and star.

- In order to change the layer order, select the object that needs to be changed
- Right click the mouse. A sub–menu will appear
- Select **Arrange**

- **Bring to Front**
  Shift Ctrl]/ Shift Cmd]
- Brings object all the way to the top

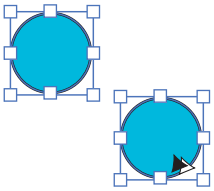
- **Bring Forward**
  Ctrl]/Cmd]
- Brings object to the top one layer at a time

- **Send Backward**
  Ctrl [/Cmd [
- Sends object to the back one layer at a time

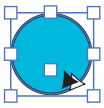
- **Send to Back**
  Ctrl Shift [/Cmd Shift [
- Sends object all the way to the back

Align, Distribute and Space:

Selection Tool (V)
Ellipse Tool (L)

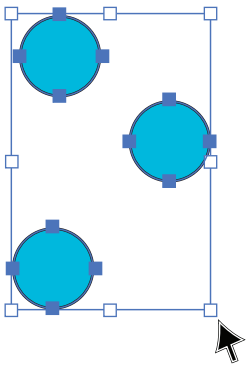


Alt, click drag

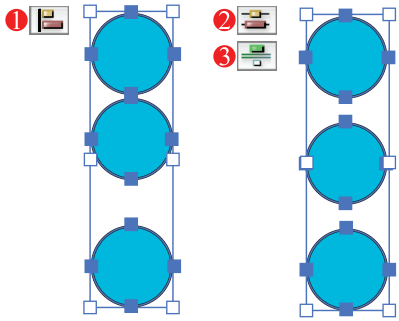


Alt, click drag

- Select the **Ellipse Tool (L)**. Holding down the **Shift** key, draw one circle
- Click onto the **Selection Tool (V)** and place the cursor on the highlighted circle, hold down the left mouse button
- Copy the circle by pressing the **Alt/Option** key. A double arrow will appear (⯈⯈) and dragging the circle away from the first circle. This copies the selected circle
- Repeat this process once more to copy the circle again
- Arrange the circles as they are in the illustration – randomly in a vertical line



- Marquee over all three circles to select them



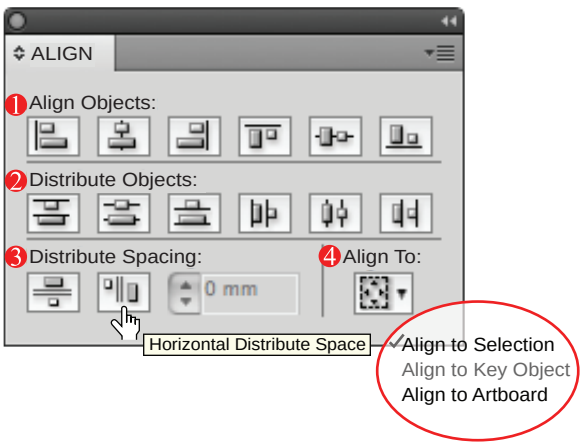
- Check if the **Align** option box is still docked in the docking panel ( ); if not click onto **Window** in the menu bar
- A drop-down menu will appear; select **Align**

❶ Once the box is open select **Horizontal Align Left** ( )

- This aligns the objects to the left

❷ To space the objects evenly, click onto **Vertical Distribute Centre** ( ) – this will distribute the objects evenly using the top and bottom objects as the anchors, or:

❸ Click onto **Vertical Distribute Space** ( ) to even the space between objects



❶ **Align Objects** – aligns objects in a straight line

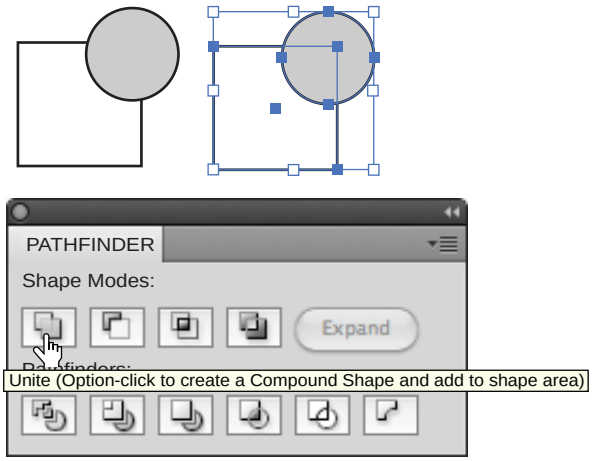
❷ **Distribute Objects** – distributes objects from the centre using the centre of the object as the pivotal point

❸ **Distribute Spacing** – distributes the space between objects, using the edge of the object as the guide

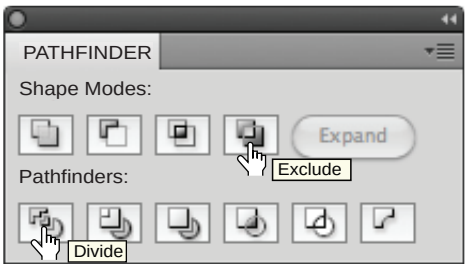
❹ **Align To** – defaults to **Align to Selection**. This is the most common option

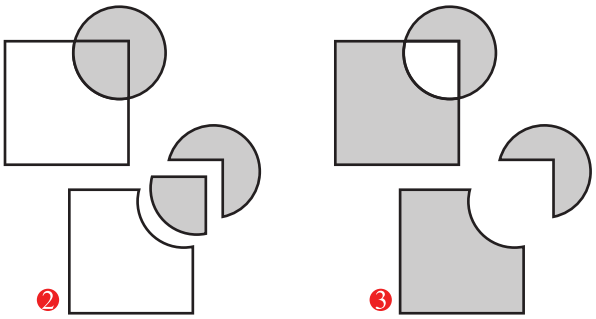
- The other selections are: **Align to Key Object** and **Align to Artboard**; either will respectively align to the Artboard or to a selected object
- When the cursor is resting on the icon a description of the icon will appear. All icons are suggestive of their respective functions

UNITE, DIVIDE AND EXCLUDE OBJECTS



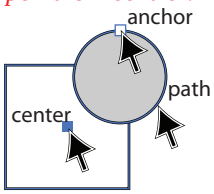
❶





❷ ❸

Smart Guides *will activate an option that highlights and names the area your cursor is resting on, like 'path' or 'anchor point' or 'centre'.*



This is particularly useful for the next exercise.

Combining and Dividing Objects:

Rectangle Tool (M)
Ellipse Tool (L)
Selection Tool (V)

- Select white for the fill box and black for the stroke box ( )
- Select the **Rectangle Tool (M)** and draw a square, deselect the **Rectangle Tool**
- Select grey for the fill box and black for the stroke box ( )
- Select the **Ellipse Tool (L)** and draw a circle, deselect the **Ellipse Tool**

❶ Marquee over both the square and circle with the **Selection Tool (V)** to select them

- Make two copies of the selected objects (ref page 16)
- The **Pathfinder** panel is linked to the **Align** panel and will have opened at the same time
- If you cannot see the icon ( ) click onto **Window** in the menu bar; a drop-down menu will appear
- Select **Pathfinder**
- Once the box is open select the **Unite** option under the **Shape Modes**
  This merges two or more shapes into one

❷ Marquee over the second copy of the square and circle with the **Selection Tool (V)** to select them

- Click onto the **Divide** icon in the **Pathfinder** panel.
  This will divide the shapes

❸ Marquee over the third copy

- Click onto the **Exclude** icon in the **Pathfinder** panel.
  This will remove the intersection of the two shapes
- By default all divided or exclude shapes are grouped after this process. To **Ungroup** the shapes ref page 17

Smart Guides:

- Smart Guides are useful when you first start using Adobe Illustrator

To activate Smart Guides:

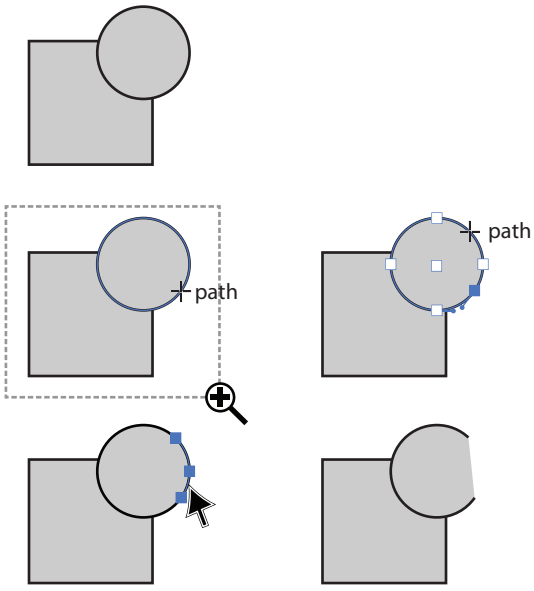
- Click onto **View** in the menu bar

  ↓

  Select **Smart Guides Ctrl U/Cmd U**
- A tick (✓) next to the words on the menu will denote that **Smart Guides** are active

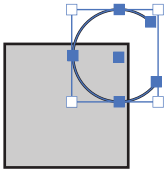
Scissor Tool and Divide an Object with a Line:

Selection Tool (V)
Scissor Tool (C)
Zoom Tool (Z)



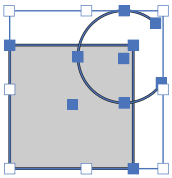
- Select grey for the fill box and black in the stroke box ( )
- Select the **Rectangle Tool (M)** and draw a square
- Select the **Ellipse Tool (L)** and draw a circle
- Activate **Smart Guides**
- Zoom in to the objects **Zoom Tool (Z)**

Place the cursor near the top left corner of the image and, holding the left mouse button down, drag the cursor over the shapes towards the bottom righthand corner, this targets the area to be enlarged **Ctrl +/ Cmd +** or **Ctrl –/Cmd –** *will also zoom in and out.*

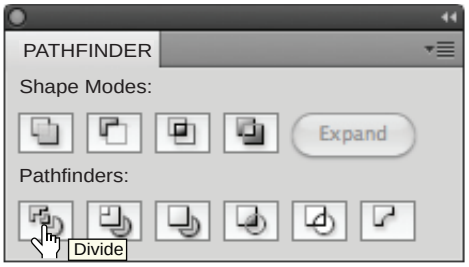


- Select the **Scissor Tool (C)** and place the cursor on the line. When the word 'path' appears click onto the line to cut it
- Move the cursor along the line and repeat this again
- Click onto the **Selection Tool (V),** select the middle of the two cut points and press the **Delete** key to delete the highlighted segment
- Select the segmented circle with the **Selection Tool (V)**, bring the fill box to the front **(X)** and remove the fill **(/)** ( )

It is essential that the line dividing the shape sits outside the shape past the stroke so that the shape can be cut through.



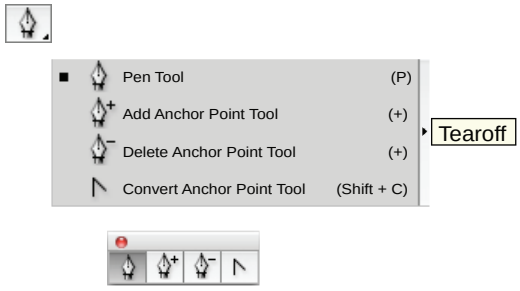
- Marquee over both the square and partial line of the circle with the **Selection Tool (V)**

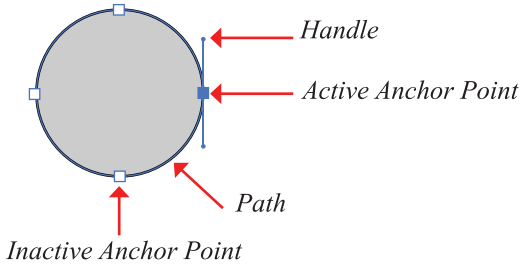


- Click onto the **Divide** icon below the **Pathfinders** selection; this will divide the square with the segment of the circle
- The two segments are grouped after this process
- To **Ungroup** the divided object, select object and right click the mouse; a sub-menu will appear
- Select **Ungroup** or simply press **Shift Ctrl G/Shift Cmd G** and the objects will be ungrouped

Note the difference between dividing two shapes and dividing a shape with a line.

PEN TOOL: ANCHOR POINTS



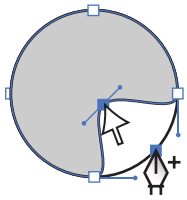


Pen Tool Options:

Pen Tool (P)
Add Anchor Point Tool (+)
Delete Anchor Point Tool (–)
Convert Anchor Point Tool (Shift C)

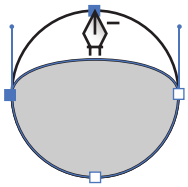
- Select the **Pen Tool (P)**
- Click onto the black arrow at the corner to access the **Tearoff** options

- An image is created with **Strokes** and **Fills**
- **Anchor Points** are joined to create **Paths** (lines) and **Paths** are joined to create objects
- A curve is determined by the length and direction of the **Handles** on one or both sides of an **Anchor Point**



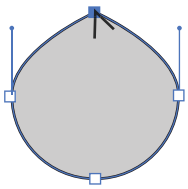
Add Anchor Point Tool (+)

- This tool adds an anchor point to a path and the anchor point can then be manipulated as needed, by using the **Direct Selection Tool (A)**



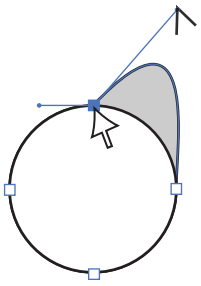
Delete Anchor Point Tool (–)

- This tool deletes anchor points from an object

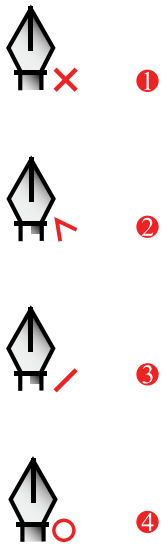


Convert Anchor Point Tool (Shift C)

- This tool manipulates anchor points and handles. By clicking onto an anchor point, the handles will be removed and the anchor point becomes a point



- By activating or clicking onto the anchor point with the **Direct Selection Tool (A)**, the handles become visible and the **Convert Anchor Point Tool (Shift C)** can be used to manipulate the handles



Pen Tool Details:

- The **Pen Tool** pointer has four indicators that communicate different messages. They are:

  ❶ The cross next to the pointer appears when the **Pen Tool** is first selected

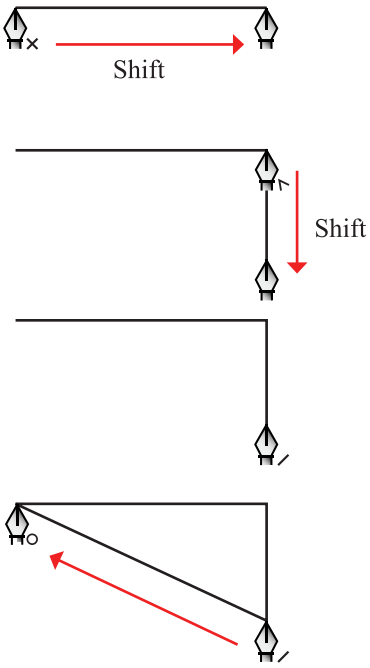
  ❷ This symbol indicates that the **Pen Tool** has not been deselected when the pointer is rested on the last anchor point. It is also used to create a point when clicked onto the anchor point again

  ❸ The forward slash next to the pointer appears if you have deselected the **Pen Tool** and then re–selected it again and want to connect to an open endpoint

  ❹ The circle denotes that two anchor points are either joined or a shape is closed

Drawing a Simple Straight Line Shape:

Pen Tool (P)
Selection Tool (V)



- Select black for the **Stroke** box and **None** in the **Fill (/)** box ( )

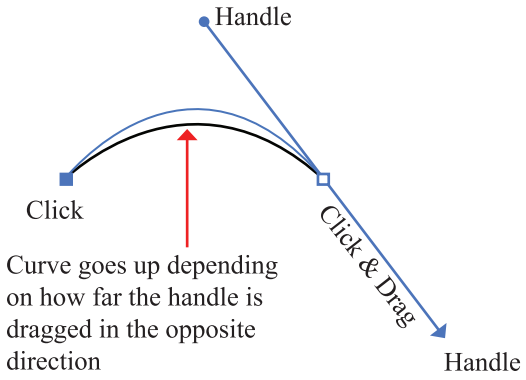
- Click onto the **Pen Tool (P)**
- Click the pointer onto the work area, release and move the pointer to the right holding **Shift** at the same time and click again

*Holding down **Shift** before the next anchor point is created will create a straight vertical or horizontal line or 45˚ angle line – the same as 'moving' an object (page 14).*

- Release, move the pointer down (vertically) holding **Shift** at the same time and click again
- Release and deselect the **Pen Tool** by clicking onto the **Selection Tool (V)**
- Select the **Pen Tool (P)** and rest the pointer onto the **endpoint** until the forward slash appears, click onto the **anchor point** and then move the pointer up to join the first anchor point to close the shape
-

*Note the symbol next to the **Pen Tool** at each move.*

CURVED LINES AND RE-SHAPING CURVED LINES



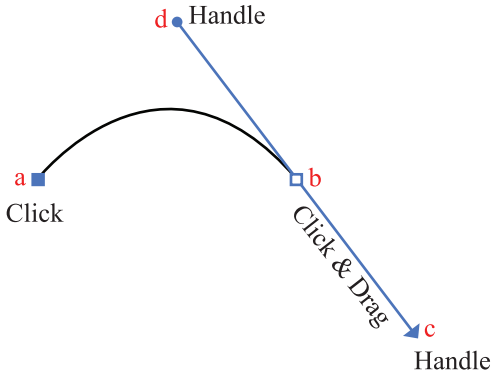
Drawing Curves:

Pen Tool (P)
Selection Tool (V)
Direct Selection Tool (A)

*Drawing curves with the **Pen Tool** requires a click and drag technique. When dragging the cursor after clicking **handles** will appear on either side of the **anchor point**.*

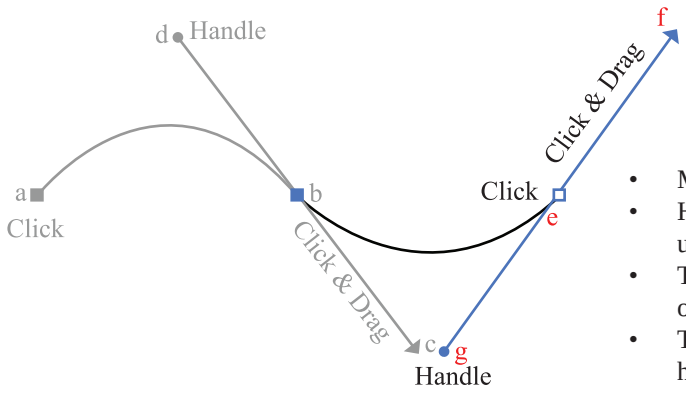
*The shape of a curve depends on the length and position of the **handles.***

- Make sure there is still nothing in the **Fill** box Hot Key/and black in the **Stroke** ( )
- Click onto the **Pen Tool (P)**



Demonstration 1: Drawing a Smooth Curve

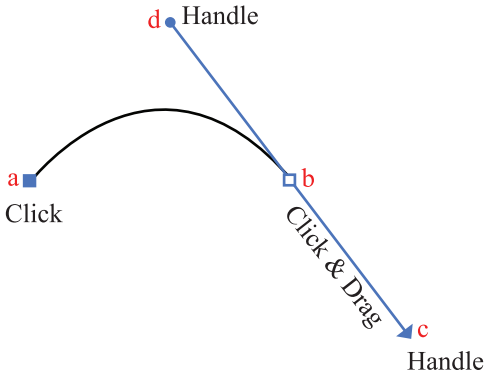
- Click onto the work area **a** and release
- Move the cursor again and click **b**. Do not release
- Hold down left mouse button and drag the **handle** down towards **c**
- The shape of the curve will be determined by the opposite **handle d**
- The next curve is determined by dragging the **handle** with the mouse **c**



- Move the cursor again and click **e**. Do not release
- Hold down left mouse button and drag the handle up towards **f**
- The shape of the curve will be determined by the opposite **handle g**
- The next curve is determined by dragging the handle with the mouse **f**

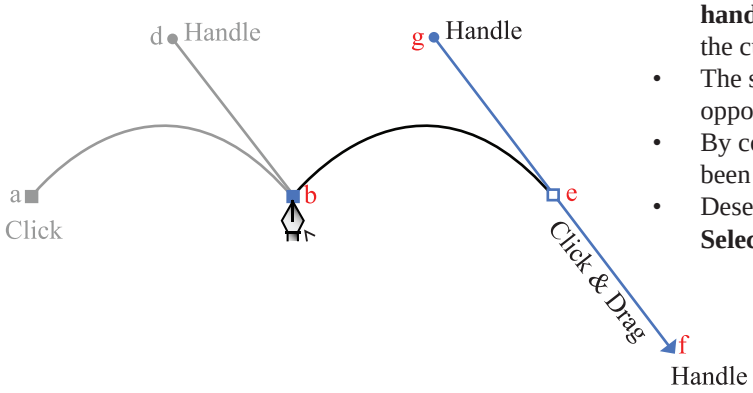
!REMEMBER!

Save the file **Ctrl S/Cmd S**

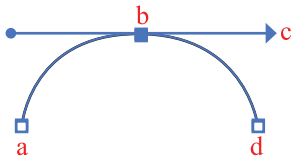


Demonstration 2: Converting an Anchor Point

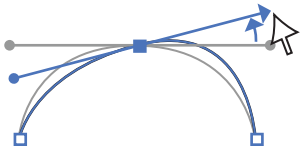
- Select the **Pen Tool (P)**
- Click onto the work area **a** and release
- Move the cursor and click **b**. Do not release
- Hold down left mouse button and drag as indicated in the illustration. A **handle** will appear **c** – this determines the shape of the curve being created
- Release the mouse button
- To create a point rest the pen cursor back on the anchor point you have just created **(b)**. Once the **Convert Anchor Point Tool** symbol ( ) appears click again onto **b**. This deletes the handle that would have created the next curve **(c)** (as demonstrated on page 24)
- Move the cursor again and click **e**. Do not release
- Hold down the left mouse button and drag – a **handle** will appear **f**. This determines the shape of the curve
- The shape of the curve is also determined by the opposite handle to the handle being dragged **g**
- By converting the anchor point at **b**, a point has been created
- Deselect the **Pen Tool** by clicking onto the **Selection Tool (V)**



Demonstration 3: Re-shaping Curved Lines

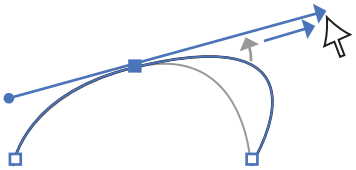


- Select the **Pen Tool (P)**
- Click onto the work area **a** and release
- Click again **b** and drag the mouse to **c** and release
- Click again **d**
- Select the **Direct Selection Tool (A)**
- Marquee over or click onto the **anchor point (b)** to activate the **handles** either side of the **anchor point**

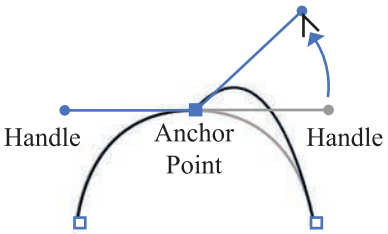


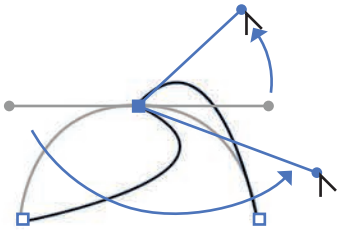
- Place the **Direct Selection Tool** at the end of the **handle** and move the **handle** up or down

*This moves the **handles** in a see-saw manner affecting both sides of the curve.*



- The curve can also be re-shaped by lengthening or shortening the **handle**
- Place the **Direct Selection Tool (A)** at the end of the **handle** and draw the **handle** out or in to adjust the curve





Demonstration 4: Converting an Anchor Point

Convert Anchor Point Tool (Shift C)
Selection Tool (V)

- Click onto the **Convert Anchor Point Tool (Shift C)**
- Click onto the end of the **handle** and move the **handle**

- The **handles** either side of the **anchor point** can now be manipulated separately, effectively forming a point at the **anchor point**

- To finish, select the **Selection Tool (V)** and click onto the work area away from any objects

You are now ready to draw a simple shape!

Step 1: Drag a Guide onto the Working Surface

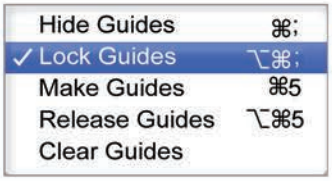
Selection Tool (V)

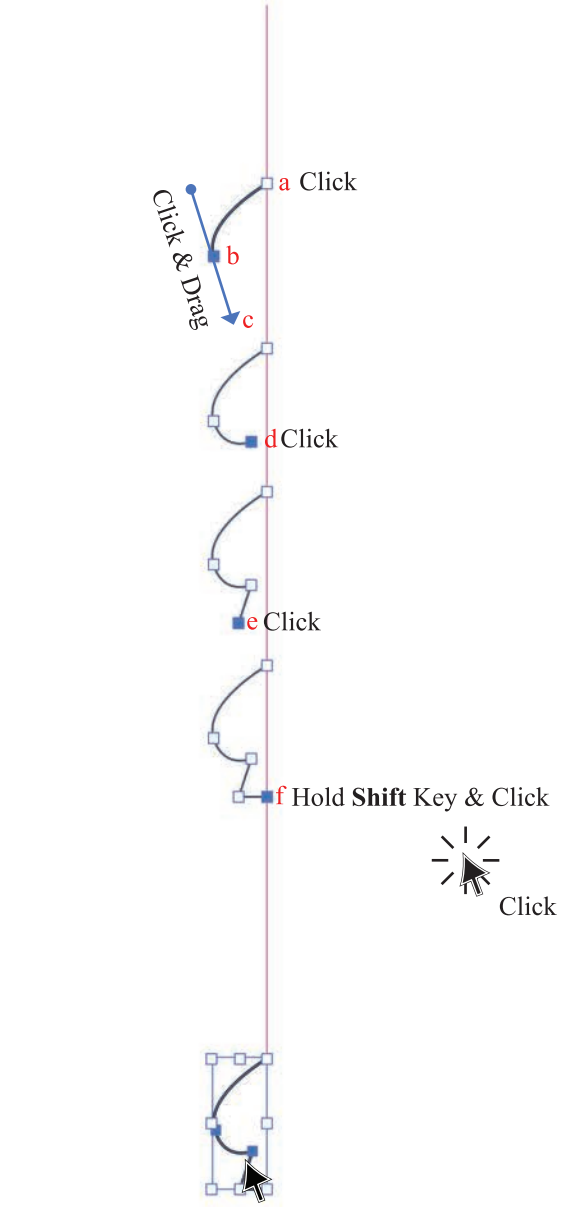
- Drag a guide line onto the third page
- Click into the vertical ruler area
- Holding the left mouse button down, drag to the right and a vertical guide line will appear
- Check to see if the guides are locked
- To view the status of the guide lines click onto **View** in the menu bar

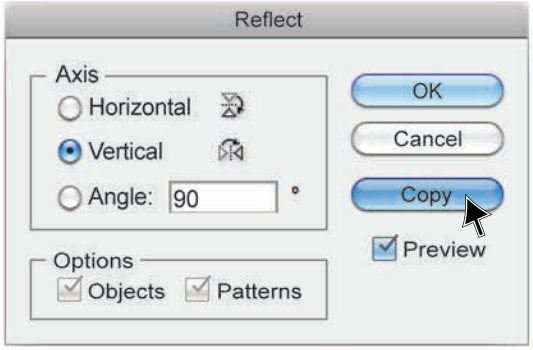
↓

Guides

- A sub-menu with options will appear: the **Lock Guides** option should be ticked (✓)







Step 2: Create Half the Shape

Pen Tool (P)
Selection Tool (V)

- Click onto the **Pen Tool (P)**
- Make sure there is still nothing in the **Fill** box **(/)** and black in the **Stroke** ( )
- Click onto the locked **Guide Line a** and release
- Move the cursor and click **b**. Do *not* release
- Hold down the left mouse button and drag – a **handle** will appear **c**. Release

*Remember, when dragging the **handle,** the line you can see is being shaped by the opposite handle to the handle being dragged. This **handle (c)** determines the shape of the line still to be created.*

- Move the cursor and click **d**, release
- Move the cursor and click **e**, release
- Hold down **Shift** and click onto the **Guide Line f** and release

This creates a straight horizontal line (ref page 23).

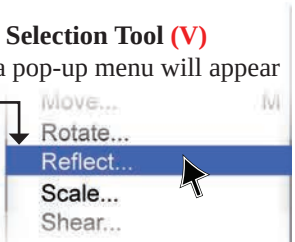
- Half the shape is complete
- Select the **Selection Tool (V)** and click onto the work area

*This will de-activate the **Pen Tool.***

Step 3: Reflect and Copy the Shape

Selection Tool (V)

- Select the shape with the **Selection Tool (V)**
- Right click the mouse – a pop-up menu will appear
- Click onto **Transform**

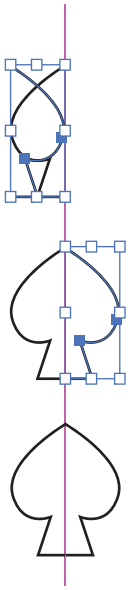


- A dialogue box will appear
- For the purpose of this exercise select **Vertical** and **90°** in the **Axis** box

Vertical will copy from left to right as opposed to horizontal which copies from top to bottom.

- Click onto the **Preview** box ( ) to preview the action
- **Copy**
- Do *not* deselect the shape

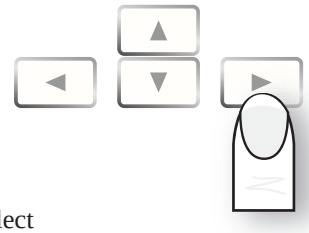
MOVE THE SHAPE AND AVERAGE



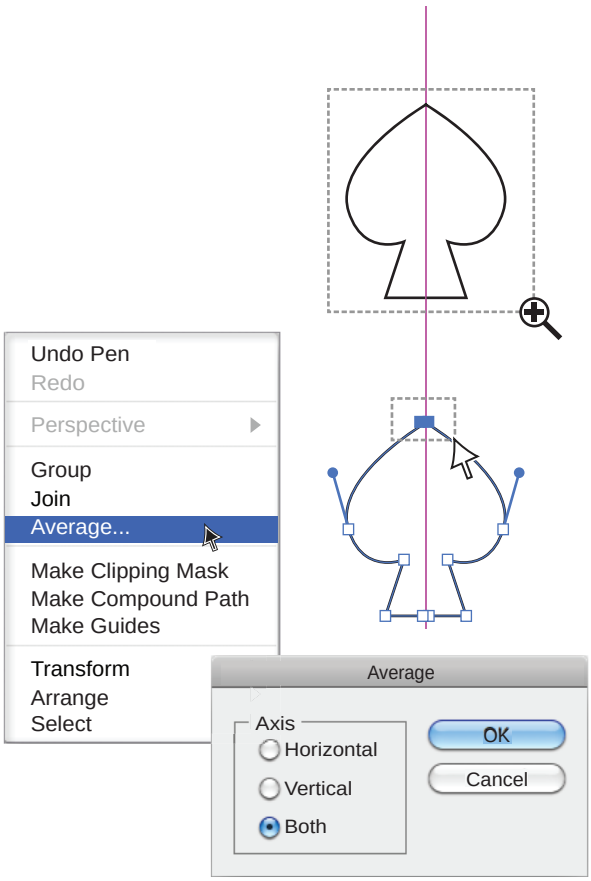
Step 4: Move the Shape

Selection Tool (V)

- With the shape still selected, hold down the left mouse button and start to drag the shape to the right
- Press the **Shift** key to drag the shape in a straight line – 180˚
- Change the **Keyboard Increment** to 0.5mm (ref page 14)
- Using the arrow direction keys on the keyboard, nudge the shape into place



- Deselect



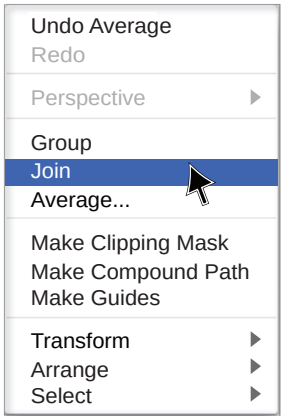
Step 5: Average Two 'Open End' Anchor Points

Direct Selection Tool (A)
Zoom Tool (Z)

- Select the **Zoom Tool (Z)** and marquee over the shape to magnify it
- Click onto the **Direct Selection Tool (A)**
- Marquee over the two **endpoints** at the top of the shape
- Right click the mouse
- A pop-up menu will appear
- Select **Average**
- Select **Both** (◉), to place the two points on top of each other
- Do *not* deselect

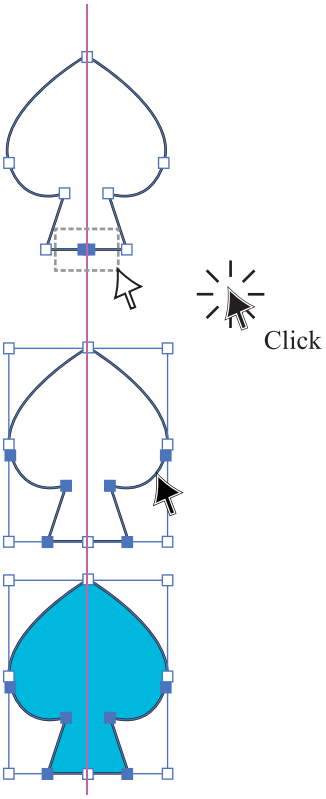
Step 6: Join the Two Halves

Direct Selection Tool (A)
Selection Tool (V)



*It is essential to '**Average**' the **anchor points** as this places them exactly on top of each other and once they are joined they become **one anchor point**. This will be very useful when you start to draw styling.*

- With the **anchor points** still selected, right click the mouse
- A pop-up menu will appear
- Select **Join** and deselect by clicking onto the work area

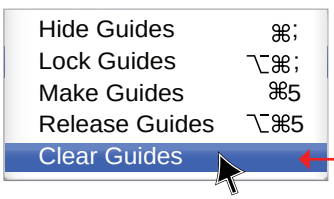


- Repeat this procedure for the two bottom **endpoints**
- Once that is done the shape is a closed shape

- Click onto the stroke (line) with the **Selection Tool (V)** to select the shape

*Be careful to click onto the **stroke** as the object cannot be selected if you click onto the space inside the shape – it needs a **fill** colour for you to do this.*

- Select a fill colour from the **Swatches** panel ( )



Remove the **Guide Line:**

- Clicking onto **View** in the menu bar, then select

↓

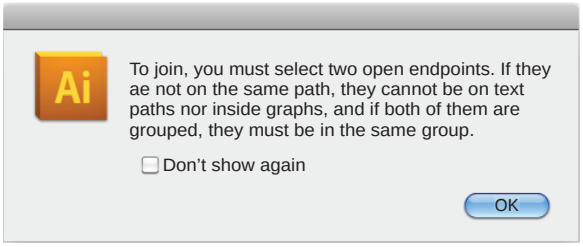
Guides

- A sub-menu with options will appear
- Click onto **Clear Guides**

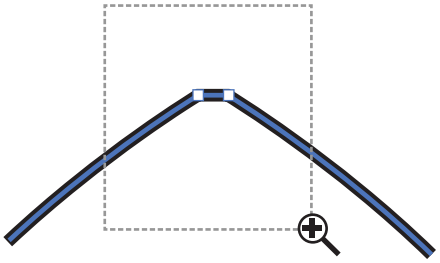
!REMEMBER!

Save the file: **Ctrl S/Cmd S**

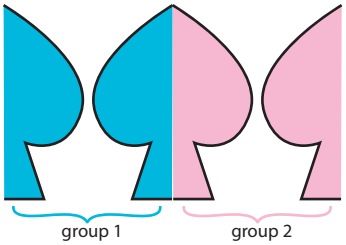
TROUBLESHOOT JOIN


To join, you must select two open endpoints. If they ae not on the same path, they cannot be on text paths nor inside graphs, and if both of them are grouped, they must be in the same group.
Don't show again
OK

❶

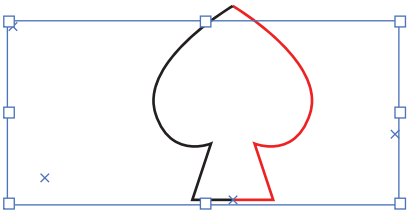


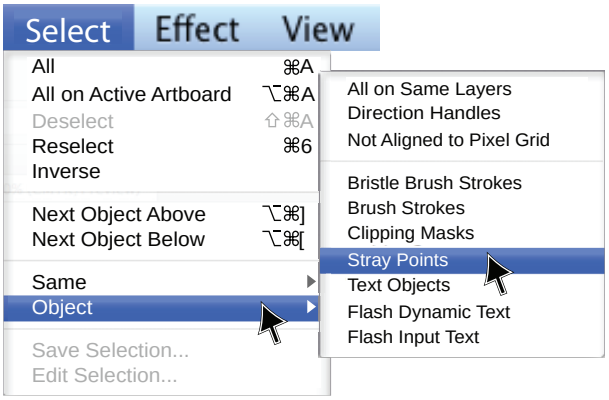
❷



❸

❹





Troubleshoot Join:

Direct Selection Tool (A)
Delete Anchor Point Tool (–)

Q: When I try to join an error message telling me I cannot join comes up. Why is this?

A: There are a few possible problems or a combination of problems:

❶ The two **anchor points** are already joined: you may have accidentally selected **Join** instead of **Average.** The **Join** option has then created a line between the two **anchor points**

Solution: Delete one of the **anchor points** with the **Delete Anchor Point Tool (-)** option in the **Pen Tools**

❷ The two **anchor points** you want to join are part of two separate **Groups** of objects
Solution: **Ungroup** everything

❸ There may be another object or line under the two **endpoints** you are trying to join

Solution: Select the two halves of the object and move them using the keyboard arrows and delete the spare line or object

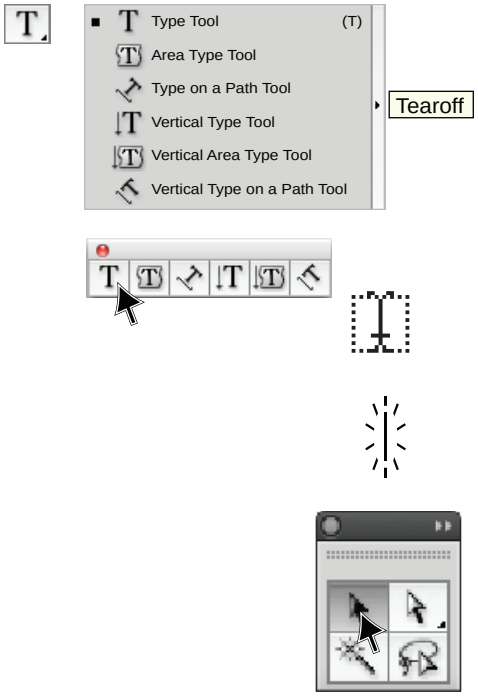
❹ There may be a **Stray Anchor Point** included with the two **endpoints**

Solution: Go to **Select** in the Menu bar → **Object** → **Stray Points**

- This will highlight all the stray points in the file. Delete these as they are only a nuisance and no help at all!!

❺ The **Guide** lines may not be locked and when you select the anchor points you also select the **Guides**

Solution: Go to **View** in the Menu bar and click onto **Guides** → **Lock Guides** or **Clear Guides** (ref page 29)



Type Tool:

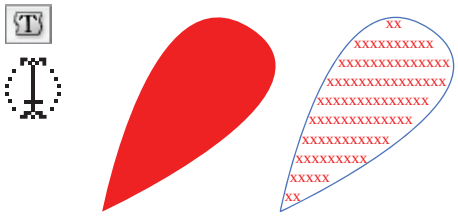
Type Tool (T)

- Open the **Type Tool** options by clicking onto the arrow at the corner of the **Type Tool** in the tools panel. Drag the cursor along the **Type Tools** to the end of the icons
- A **Tearoff** option will appear when the cursor reaches the end of the icons
- A type symbol will appear ( ), denoting that the **Type Tool** has been selected but not activated
- Click onto the work area with the**Type Tool.** This activates the **Type Tool** and a flashing line appears
- The only way to deselect the type tool is to click onto the **Selection Tool** in the tools panel

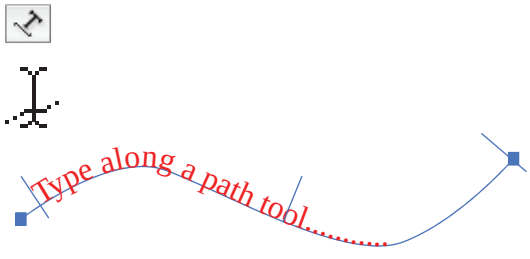
*Do not use the **Keyboard Shortcut**, as this is read as a letter when the **Type Tool** is activated. It will type 'v'.*

There are six different options in the type tool:

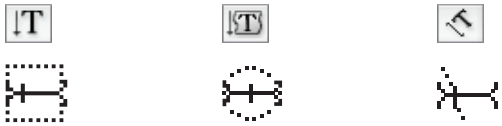
Basic **Type Tool (T):**
Select this option and click onto the work area and start typing



Area Type Tool:
This tool adds text within a closed shape. Select this option and click onto the edge of the shape, the outline of the area will go transparent and start to type or paste imported text

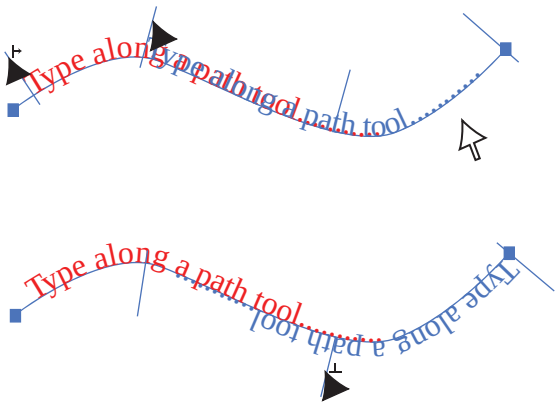


Type on a Path Tool:
This tool types along a designated line (path). Select this option and click onto the path, the line will go transparent and type along the path



The **Vertical Type** tools follow the same rules as the **Horizontal Type** tools, only they type vertically

TYPE TOOL



Moving Type on a Path:

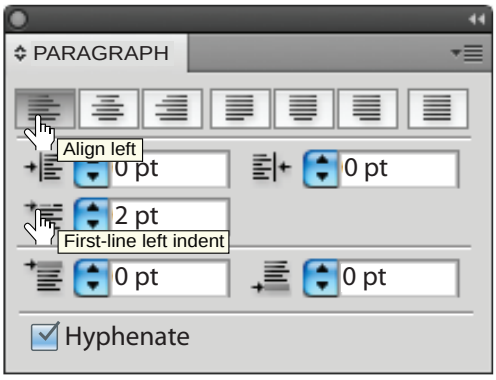
Type on a Path Tool – No keyboard shortcut
Selection Tool (V)
Direct Selection Tool (A)

- Select the type with the **Selection Tool (V)**
- Click onto the **Direct Selection Tool (A)** and carefully place the cursor onto the fine line at the start of the type and move
- A symbol will appear to show you the direction you can move the type (⊢). This will move the type along the path
- If you carefully place the cursor onto the fine line in the middle of the type, a symbol will appear (⊥) and the type can then be flipped onto the other side of the path

To Open the Type Tool Panel:
Type Panel Ctrl T/Cmd T

- Pressing **Ctrl T/Cmd T** opens the **Type Tool** panel
- The **Type Tool** panel has linked panels and these would have opened at the same time as the **Character** Panel (ref page 5)

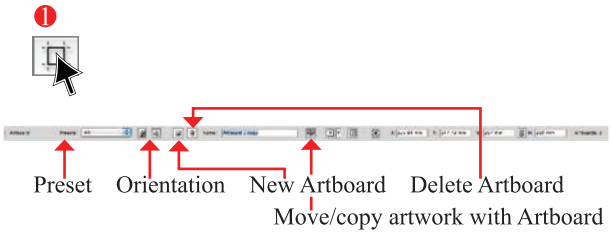
- **Character** – in this panel the font can be selected and size and spacing is determined

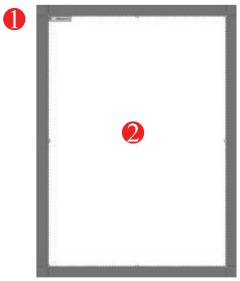


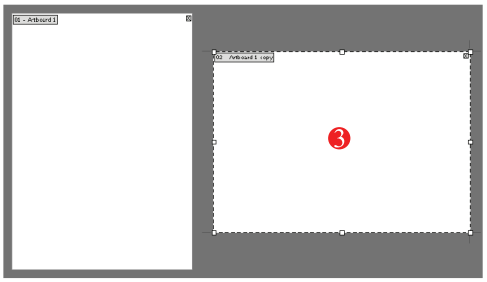
- **Paragraph** – in this panel paragraph alignment and style can be determined

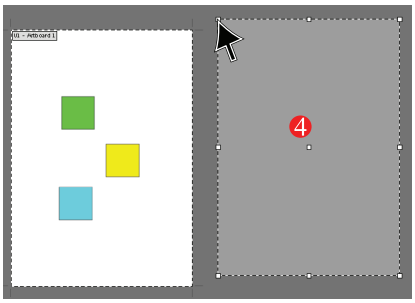
- Resting the cursor over the option will reveal the name of the option
- Clicking into the option measurements allows you to change the measurement
- Clicking onto the arrows makes the measurements higher (▲) or lower (▼)

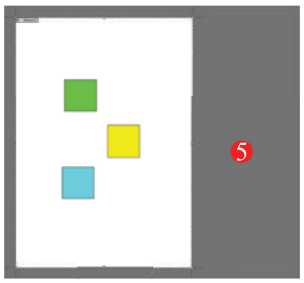
*Note: The program default is set linking **Character**, **Paragraph** and **Open Type** to open at the same time.*

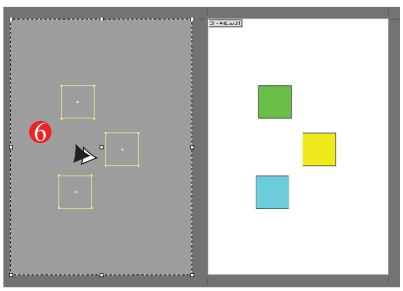












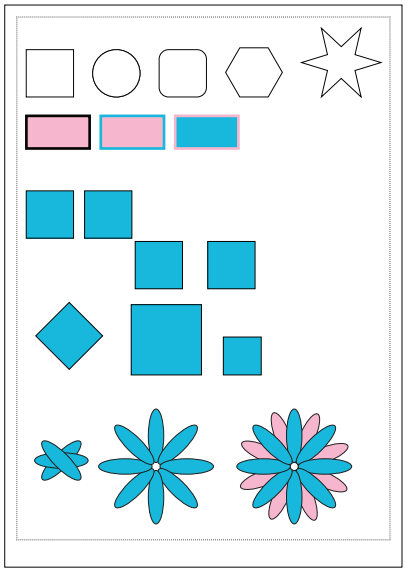
Adding or Changing Artboards:

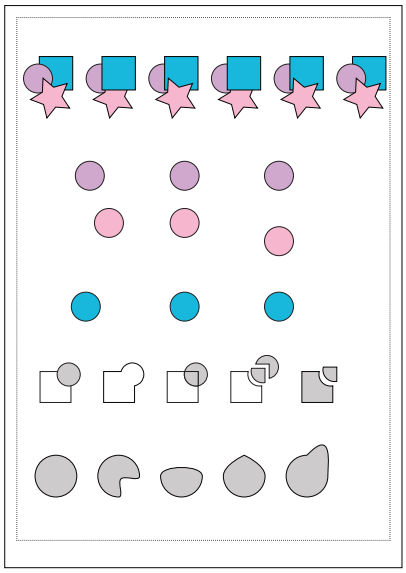
Artboard Tool (Shift O)

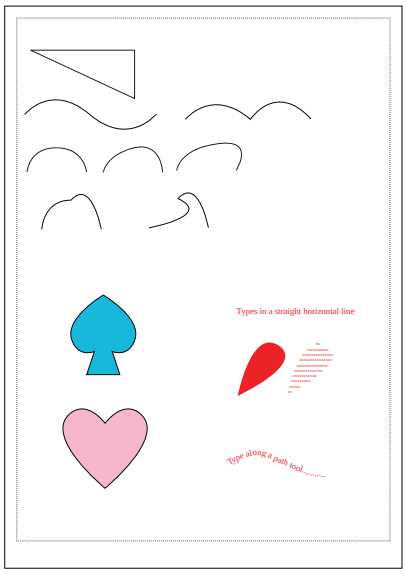
*When you open a new file you have the opportunity to state the size, number and orientation of the **Artboards** (ref page 4). You can add more **Artboards** or change the orientation or size of your **Artboards** at any stage.*

1. Click onto the **Artboard Tool (Shift O)** in the **Tools Panel**. The whole work area except the **Artboards** will go grey and the **Options** bar now has **Artboard** options in it
2. **Preset** – gives you the choice of a *preset* paper size or *custom* to customise the **Artboard** size
3. **Orientation** – landscape or portrait
4. **New Artboard** – adds a new artboard not a copy
5. **Delete Artboard** – select and delete an artboard
6. **Move/copy artwork with Artboard** – when this option is selected, this is the default option, you can copy the **Artboard** and the artwork together. If it is not selected you will only copy the **Artboard**
   - Select the **Artboard** with the artwork, hold down the **Alt** key and move the artboard and artwork aside to copy it

SUMMARY CHAPTER 1







Key Points in Chapter 1:

Chapter 1 has introduced you to the AI workspace and some of the tools and panels we will use to create fashion drawings.

To summarise:

1. You have learned the basic difference between *vector images* and *bitmap images*
2. You have learned how to open a new file and save it, keeping in mind the version of AI we saved in and the path we saved the file in. This is called file management
3. You have learned how to set up and customise your workspace and to save those preferences
4. You have learned what the Tool Panel is and what a Panel is, how to add other panels to your docked panel and where to find basic functions in the drop-down menus
5. You have learned simple tool and panel functions and how and when to apply them, such as:
   - The difference between the Selection tools – **Selection**, **Direct Selection** and **Group Selection**. These are very important distinctions to remember
   - How to use the shape tools and apply different colours from the Swatches panel and different stroke widths using the stroke panel
   - You have been introduced to different ways of moving and copying objects
   - You have learned how to move objects from behind an object to the front of an object
   - You can now divide and combine objects using the Pathfinder functions
   - You have learned to use the different Pen Tool functions and how to draw using the Pen Tool to create curved lines and then a closed symmetrical shape
   - Lastly, you have been introduced to the Type Tool

Self-paced exercises relating to Chapter 1 can be downloaded from the wiley website: www.wiley.com/go/centner_adobe

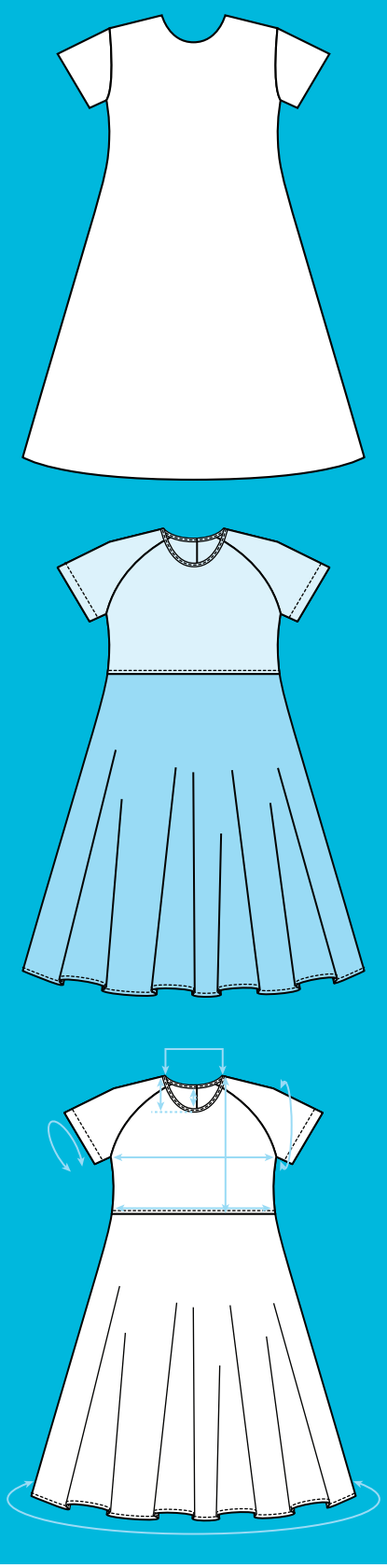
These are the basic functions and tools you will need to begin drawing garment designs in Adobe Illustrator.

We cannot emphasise enough how important it is to practise all of these basic functions for you to become an adept user. Have a bit of a play with these tools and draw some other symmetrical shapes; play with the rotate function and again PRACTISE, PRACTISE, PRACTISE!!!

CHAPTER 2

FIRST GARMENT

Drawing The First Dress

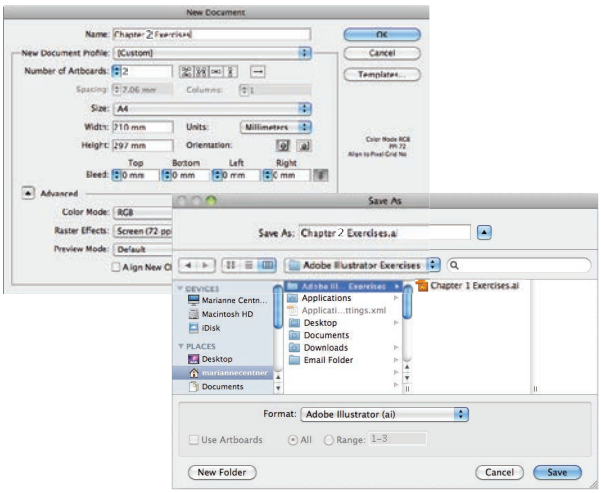


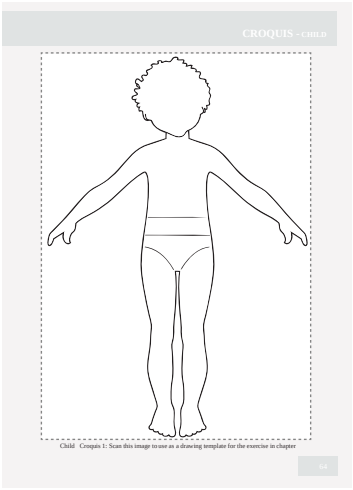
CHAPTER 2 step–by–step practical instructions of how to apply the information from Chapter 1 to drawing a simple garment. In this chapter we also introduce simple pattern fills, brush strokes and a simple technical drawing.

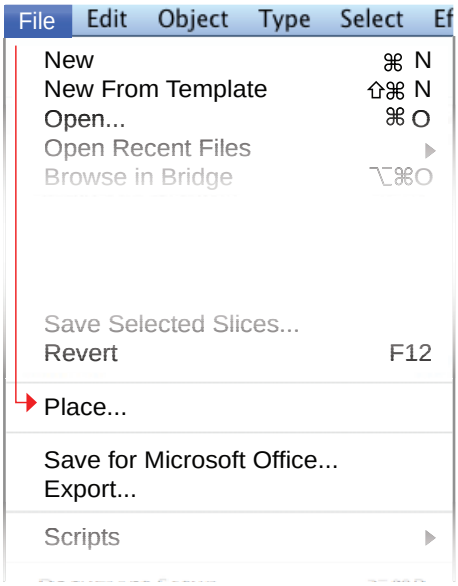
- Create a new file – scan and place an image 36
- Trace and expand the image of child croquis 37
- Create a new layer .....38 – 39
- Drawing a dress:
  - Complete one half of the dress 40
  - Create sleeve and reflect the whole dress 41
  - Average and join dress 42
  - Re–shape the neckline.....43
  - Layer visibility, prepare to divide the shape .44
  - Divide and change the fill colour 45
  - Add hem fullness .....46 – 48
  - Troubleshoot blend tool and expand.....49
  - Add top stitching.....50 – 51
- Completed dress, create alternate style:
  - Preview/outline views and unite .....52 – 53
  - Neck binding and raglan design line.....54 – 55
  - Divide the front and back bodices 56
  - Back bodice and neck binding … 57
  - Create buttons and blend tool 58
  - Reflect and copy the back bodice.....59
  - Creating the back view.....60
- New layer and colour change 61
- Measuring lines with arrows.....62
- Prepare file for export to JPEG format .....63 – 64
- Summary.....65
- Croquis: Child 66

Note: some parts of headings and sub-headings may be summarised.

SCAN AND PLACE AN IMAGE IN A FILE







Step 1: Create a New File

- Create a new file with **two A4** artboards, as you did in Chapter 1 (page 4). Save this file: *Chapter 2 Illustrator Exercises*
- Make sure that you have selected your own customised workspace
- Select the following items from the **View** drop-down menu (page 6):
  - **Show Grid**
  - **Show Rulers**
  - **Snap to Point**

Be careful to select (✓) ***Snap to Point*** *and not* ***Snap to Grid****. Snap to* **'Grid'** *snaps to the actual grid, whereas Snap to* ***'Point'*** *snaps one* ***anchor point*** *to another.*

Once you have established your workspace and saved the file turn to page 66 and scan in ***Child Croquis*** *to start drawing your first garment.*

Step 2: Scan in Child Croquis

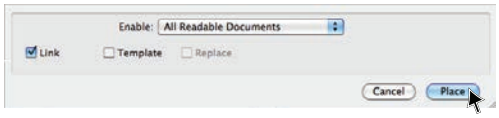
- Scan in the image on page 66 and save as a **JPEG** or a **TIFF** file in the same folder as your Illustrator Exercises folder – **Child Croquis Scan**

- Please note all scanners are different and there are two points to consider:
  1. Scan the image at 300 DPI (dots per inch)
  2. Scan the image in black and white – this makes it a smaller file
- For all other instructions follow the scanner instructions

If drawing your own figure, it is essential there are no gaps in the lines.

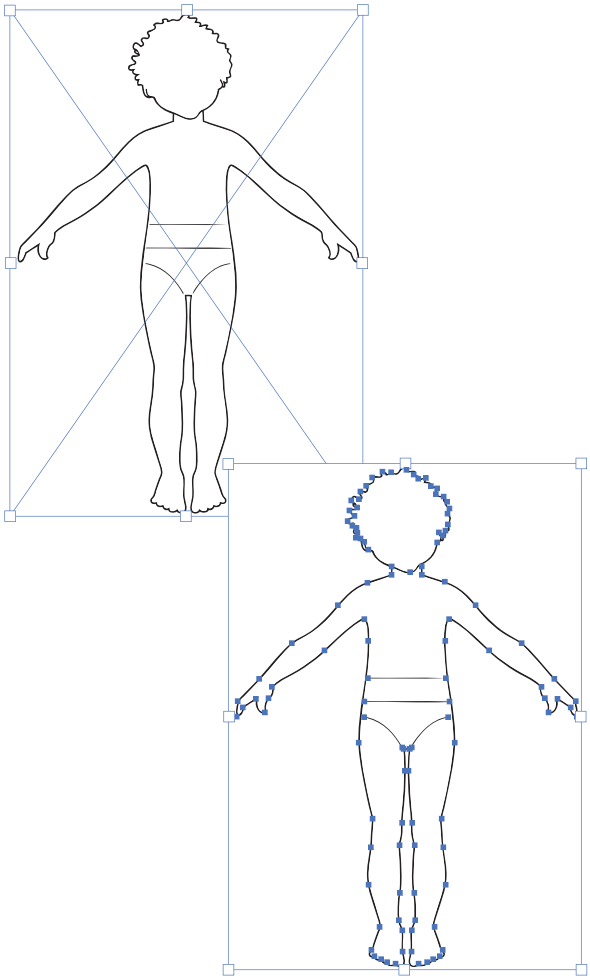
Step 3: Place the Scanned Croquis

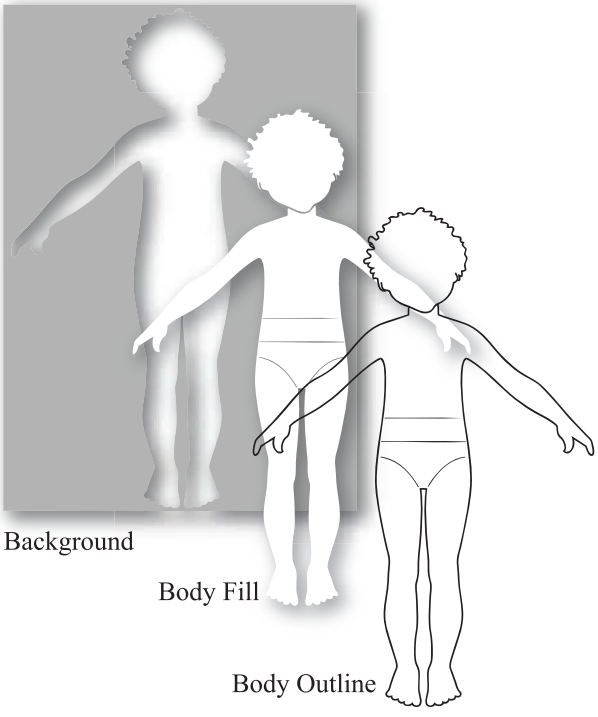
- Click onto **File** in the menu bar
- Select **Place**
- The same directory where the *Chapter 2 Illustrator Exercises* file was saved will open
- Select the **Child Croquis Scan** file
- Click onto **Place** in the dialogue box



This will place the scanned image into the open file.

TRACE AND EXPAND THE IMAGE OF CHILD CROQUIS

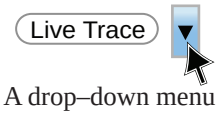




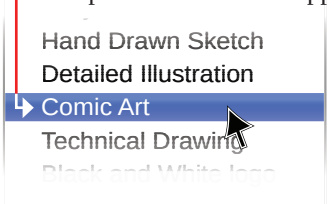
Step 4: Trace the Scanned Image

Selection Tool (V)

- Select the scanned image which is a *bitmap image*
- Click onto the arrow next to **Live Trace** in the menu bar



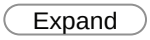
- A drop–down menu will appear



- Select **Comic Art**
- The image will be traced and now needs to be expanded to create a *vector image*

Step 5: Expand the Traced Image

- Once the image is traced an option to **Expand** the image will appear in the tool bar

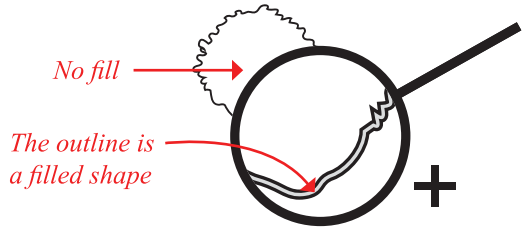


- Click onto this option and the image will become a vector image. If this option does not appear go through the menu bar drop-down menu option:
  Object
  ↓
  Live Trace ⟶ **Expand**
- Ungroup and deselect the image

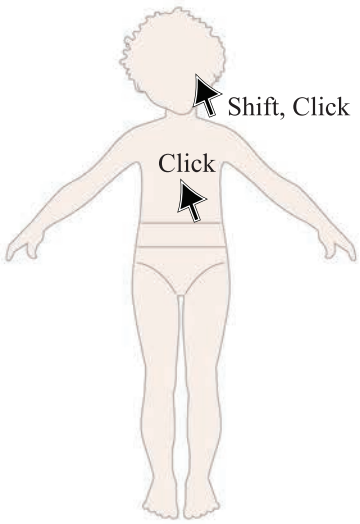
Detail of the Traced Image:

- Once the image is traced and expanded it can be ungrouped into layers of shapes
- **Background**: this is the area around the scanned image
- **Body**: this is the fill inside the outline
- **Outline**: this is the line around the body

*Note: the outline is not a **stroke**, but a **fill**.*



CREATE A NEW LAYER



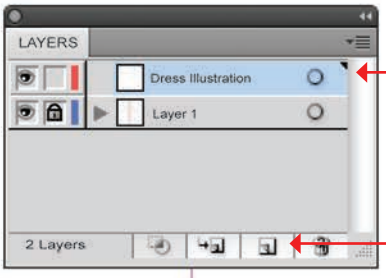
Step 6: Change the Colour of the Figure

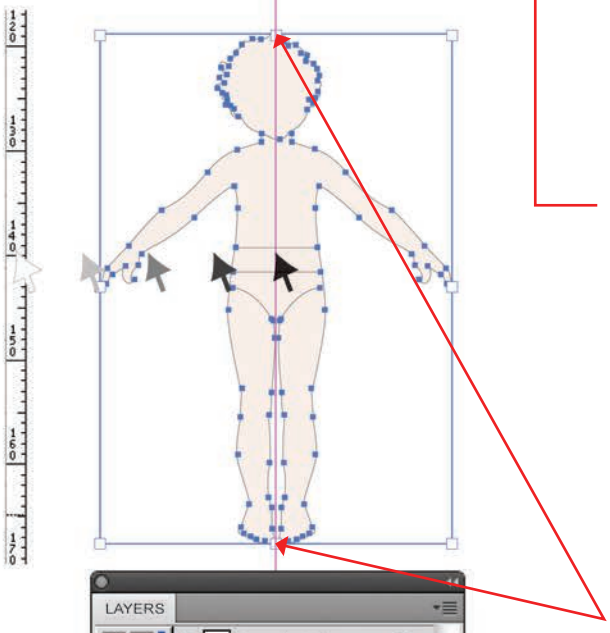
Selection Tool (V)

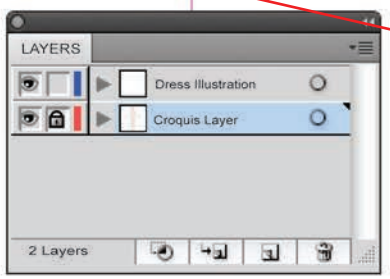
- Select the background with the **Selection Tool (V)** and **Delete** this by pressing the **Delete** key on your keyboard
- Click onto the body with the **Selection Tool (V)**, hold the **Shift** key down and click onto the head

*Holding **Shift** down enables you to pick up more than one object at a time without either deselecting the first object or selecting other objects as you would if you had marqueed over the body and head shapes.*

- Go to the **Swatches** panel and select a fill colour ( ). Marquee over the whole croquis and **Group** it **(Ctrl G/Cmd G)** (ref page17)



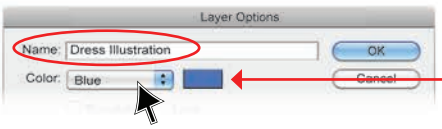




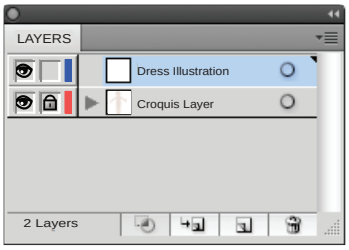
Step 7: Create a Second Layer and Lock Layers

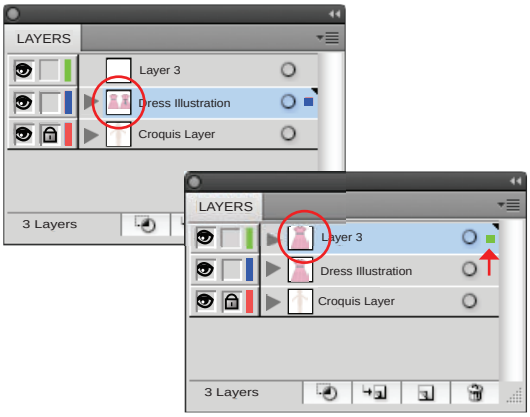
Selection Tool (V)

- The **Layers** panel ( ) shows how many layers are in the file
- At the moment you have only one layer in this file
- We will create another layer so that the croquis can be locked in the bottom layer and you can draw in the new layer:
- Click onto the **Create New Layer** icon ( )
- The layer that you are in will be highlighted with a *blue bar*
- Double-clicking the bar will open a dialogue box. You can name the new layer and change the object highlight colour to a colour that suits you



- You can do the same for Layer 1, re-name it 'Croquis Layer'. Change the highlight colour to Red
- Click back onto the first layer and select the croquis
- The centre of the bounding box is the centre of the figure
- Select the new layer again and drag a **Guide Line** from the vertical ruler to line up with the centre *'Bounding Box Handles'* of the selected croquis
- Lock the Croquis Layer by clicking into the second box next to the visible layer icon ( )
- A small lock will appear ( )



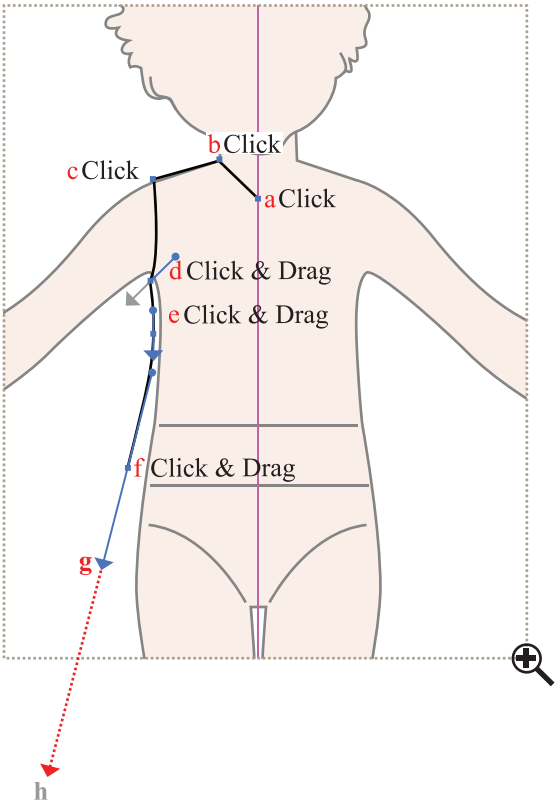


About Layers:

- The **Layers Panel** allows you the option to store different parts of a story board on different layers
- **Layer 1** has the croquis (template)
- **Layer 2** has the dress (*Dress Illustration*)
- The eye ( ) denotes the layer is visible
- To hide the layer, click onto the eye and the layer will become invisible ( )
- The padlock ( ) denotes the layer is locked. You cannot work on this layer
- To unlock the layer, click onto the padlock and the layer will be unlocked and can be worked in ( )
- To create a new layer click onto the New Layer icon ( )
- To delete a layer, select the layer and then click onto the waste basket ( ) and the highlighted layer will be deleted
- You can move objects from one unlocked layer to another by selecting the object and then clicking onto the highlighted square in the layer panel ( ) and moving that square to the target layer ( )

Step 8: Starting to Draw

Pen Tool (P)

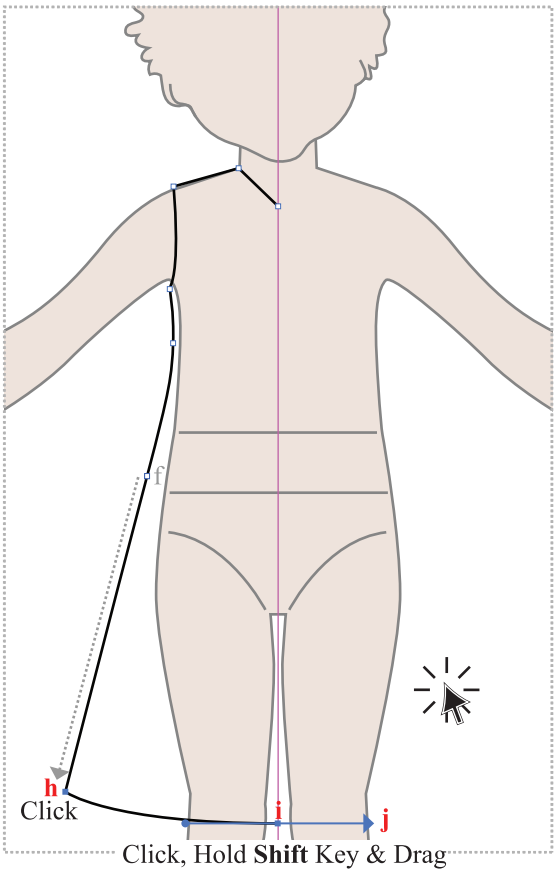


- Select Layer 2 (re-named *Dress Illustration*)
- Select the **Pen Tool (P)**
- Make sure there is nothing in the **Fill** box **(/)** and black in the **Stroke** ( )
- Click onto the **Guide Line a**, and release
- Move the cursor, click at the neck/ shoulder junction **b**, release
- Move the cursor, click at the shoulder point **c**, release
- Move the cursor to under the arm, click and drag **d** to create the armhole, release
- Click back into **d** to *convert the anchor point* ( ) (ref page 25 – **Pen Tool**)
- Move the cursor, click and drag to follow the contour of the body **e**, release
- Move the cursor **f**, click and drag to **g** following through towards the next anchor point to create the side seam shape, release

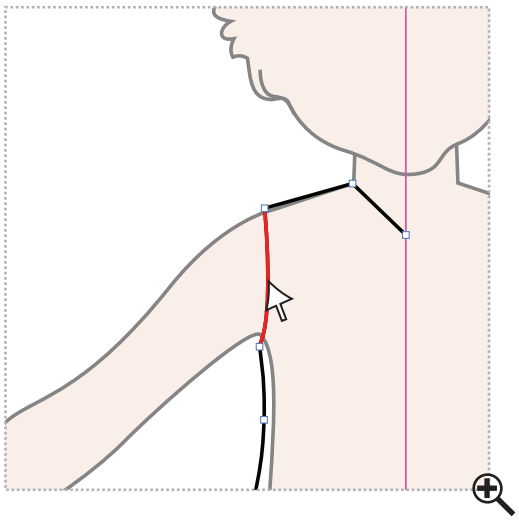
!REMEMBER!

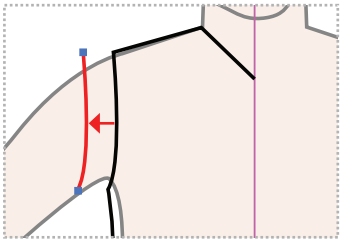
Save the file **Ctrl S**/**Cmd S**

COMPLETE ONE HALF OF THE DRESS



Click, Hold **Shift** Key & Drag





Step 9: Complete One Half of the Dress Body

Pen Tool (P)
Selection Tool (V)
Hand Tool (H)

- Follow the direction of the down handle from **f** and click **h** at the side hem corner, release
- Move the cursor and click onto the guide line **i**, do not release. Hold down left mouse button and **Shift** key, at the same time drag to the right. A handle will appear **j**, release

Holding shift whilst dragging the mouse will drag the handles in a horizontal line creating a smooth join when we mirror and join the shape.

- Deselect the **Pen Tool** by clicking onto the **Selection Tool (V)** in the **Tools Panel**
- Click away from the garment shape to deselect

- To move around the work area, just hold down the **Space Bar** and a hand () will appear. Hold the left mouse button down and move around the work area

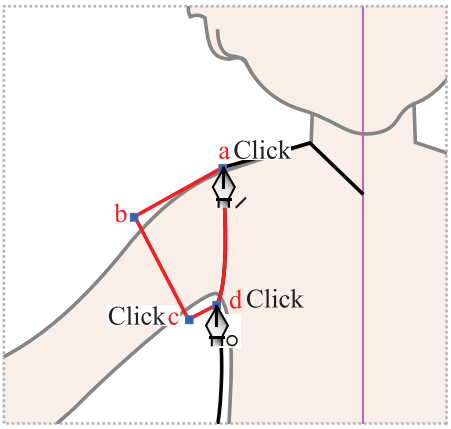
By using the Keyboard Shortcut for the above operation, you will be able to remain in the tool being used once the Keyboard Shortcut is released.

Step 10: Create the Sleeve

Pen Tool (P)
Direct Selection Tool (A)

- Click the **Direct Selection Tool (A)** onto the centre of the armhole stroke. Note that all the anchor points are *'inactive'* () when you do this
- Copy the line to the front (page 16)
  Ctrl C/Cmd C – to copy
  Ctrl F/Cmd F – copies the object to the **F**ront
- We usually change the colour of the stroke at this stage just to check you have actually copied the armhole only ()
- Move the line away, using the direction arrows and a keyboard increment of 1mm (ref page 14) and then back on top of the armhole again

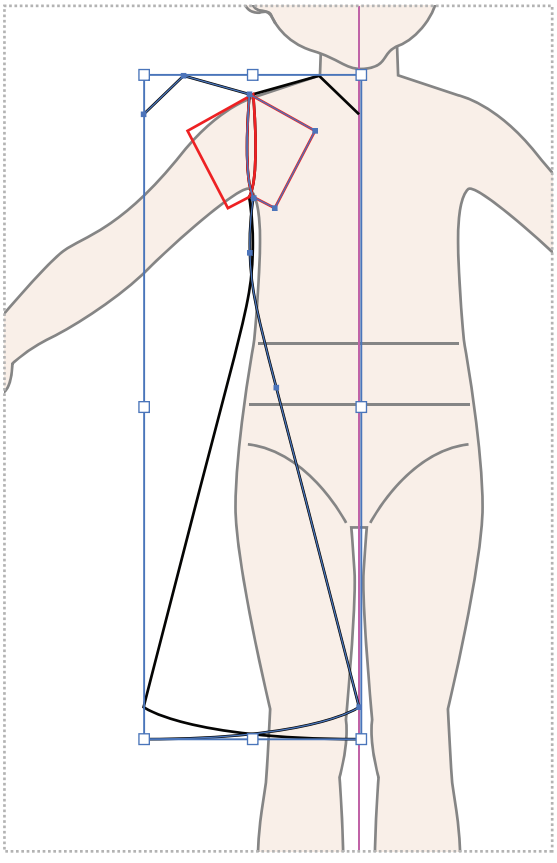
CREATE SLEEVE AND REFLECT THE WHOLE DRESS



Step 11: Complete the Sleeve

Pen Tool (P) Selection Tool (V)

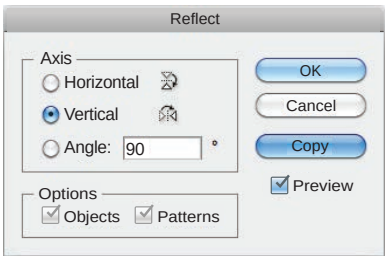
- Select the **Pen Tool (P)** and rest it on the *'open end anchor point'* at the top of the armhole – you will know it is in the correct place when a forward slash symbol appears next to the pen symbol ( )
- Click **a**. The armhole line will now be highlighted as an *active* object
- Click **b** and click to **c**
- Finally close the shape by resting the cursor on the *'open end anchor point'* at the bottom of the armhole – you will know it is in the correct place when a circle symbol appears next to the pen symbol ( ). Click onto **d** to close the shape
- Marquee over both the sleeve and the half dress with the **Selection Tool**
- Now **Group (Ctrl G/Cmd G)** the sleeve and the body. This will be easier when you reflect the dress



Step 12: Reflect and Copy the Dress

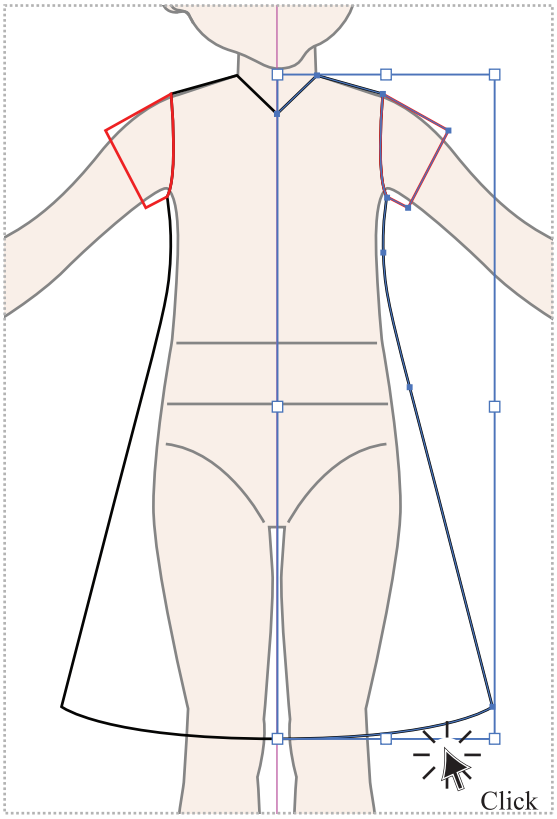
Selection Tool (V)

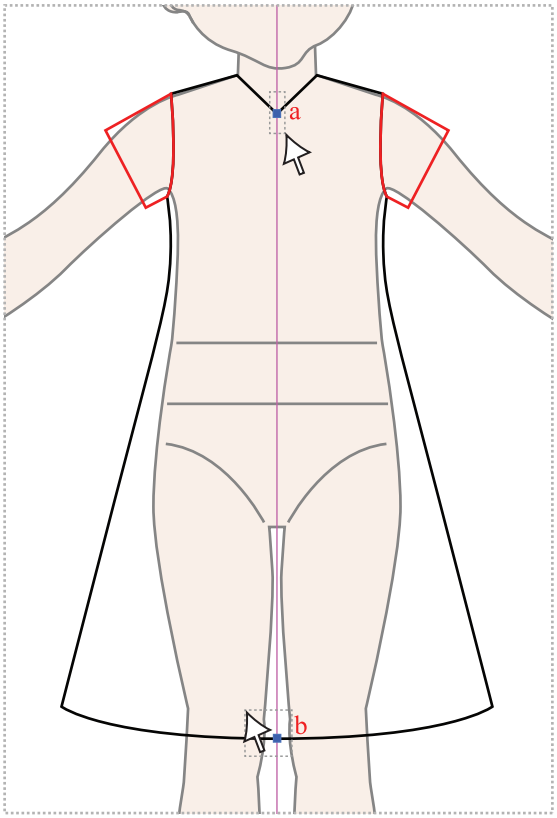
- Select the shape with the **Selection Tool (V)**
- Right click the mouse – a pop-up menu will appear
- Click onto **Transform → Reflect**



- **Preview**
- **Copy**

- Do *not* deselect the shape
- Ref page 27 for a detailed explanation

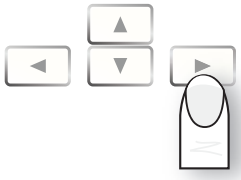




Step 13: Move the Reflected Dress Shape Across

Selection Tool (V)

- Hold down the left mouse button and start to drag the shape to the right
- Press the **Shift** key to drag the shape in a straight line – 180˚
- Use the arrow direction keys on the keyboard to nudge the shape into place



- Deselect the dress by clicking away from the shape
- Marquee over the two sides of the dress and **Ungroup** it **Shift Ctrl C/Shift Cmd C**

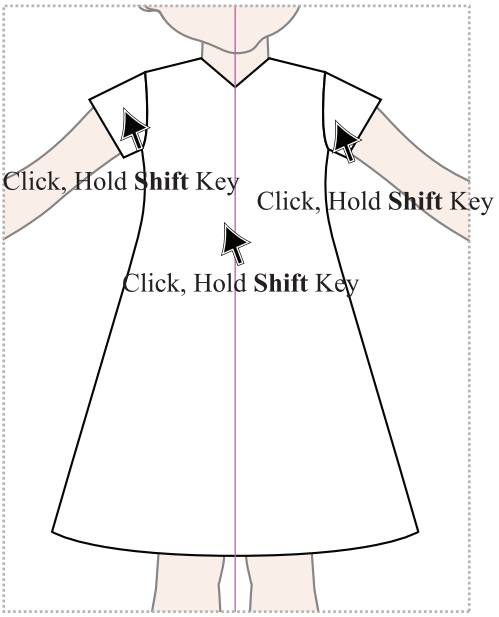
*At this point it would be useful to check for and delete **Stray Anchor Points** (ref page 30).*

Step 14: Average and Join the Two Halves

Direct Selection Tool (A)

- Marquee over the two anchor points at the centre neck **a** with the **Direct Selection Tool (A)**
- Ensure that only the two points to be joined are highlighted. We always marquee from the outside to the inside
- Right mouse click, a pop-up menu will appear, click onto **Average**
- A dialogue box will appear
- Select **Both** (◉) and click onto **OK**
- This will place the two points on top of each other
- Do not deselect
- Right click the mouse again, a pop-up menu will appear
- Click onto **Join**
- This will join the two points and make them one point
- Repeat the same process for **b**

Note: it is very important to only have one point at the centre front neck and hem as this will impact on future shaping.



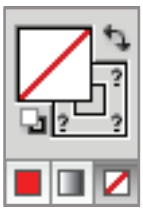
Step 15: Group and Change the Fill and Stroke

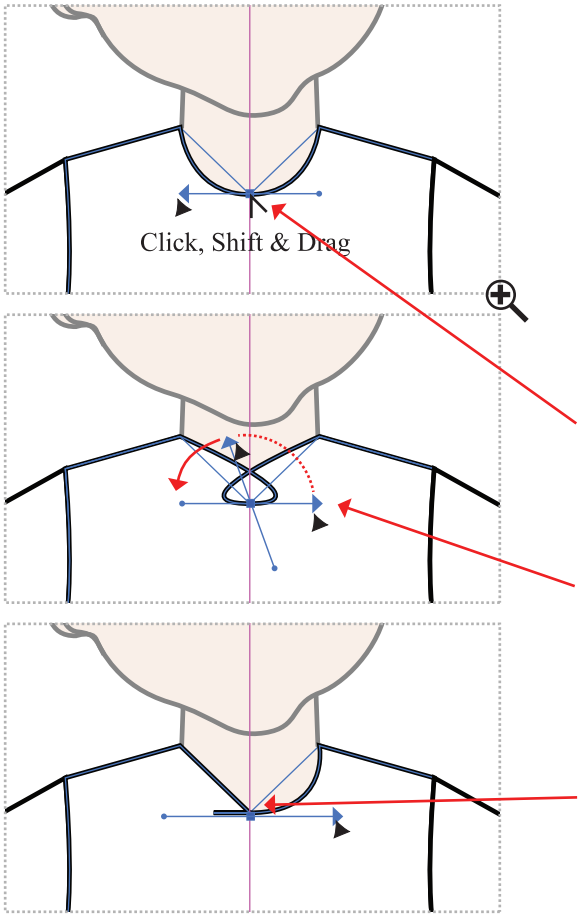
Selection Tool (V)

- Click onto each sleeve and the dress shape and group these together **(Ctrl G/Cmd G)** (ref page 17)

*To select more than one object at a time you can click onto the first object, hold the **Shift** key down and select multiple objects.*

- Now you can go to the *'default'* swatches in the **Tools Panel** and change the dress to the default fill and stroke
- White fill
- Black stroke
- 1 pt





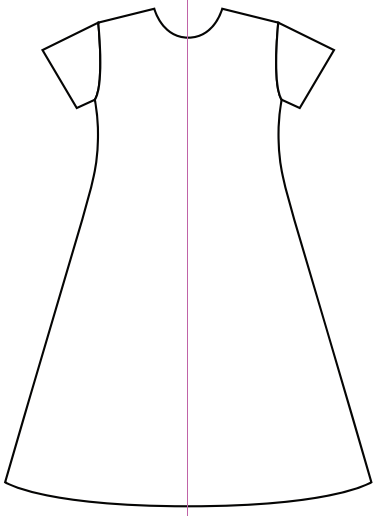
Step 16: Re-shape the Neckline and Troubleshoot

Direct Selection Tool (A)
Convert Anchor Point Tool (Shift C)
Delete Anchor Point Tool (–)

- Activate the dress body shape by clicking onto the stroke with the **Direct Selection Tool (A)**
- Click onto the **Convert Anchor Point Tool (Shift C)** under the **Pen Tool** symbol in the **Tools Panel** (ref page 22)
- Click the cursor onto the centre front neck point and drag the cursor. A handle will appear
- Hold down the **Shift** key while you are doing this and you will create a symmetrical neckline curve either side of the centre anchor point
- Once you start to drag a black arrow will appear. If the neck line starts to create a loop, simply let go of **Shift** and rotate the cursor to the opposite side and hold down **Shift** once again

- If you start to drag and only one side is curving, you may have an extra **anchor point**. Simply delete the other **anchor point** with the **Delete Anchor Point Tool (–)**

LAYER VISIBILITY AND PREPARE TO DIVIDE THE SHAPE

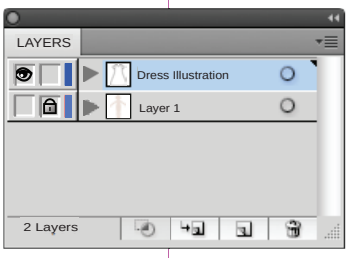


Step 17: Hide the Croquis Layer

Selection Tool (V)

- Now that the basic shape is complete the croquis layer does not need to be visible
- Leave Layer 1 locked and click onto the eye ( )
- This will hide the layer ( )

Hidden layers do not print.

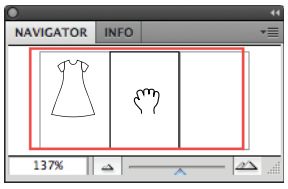


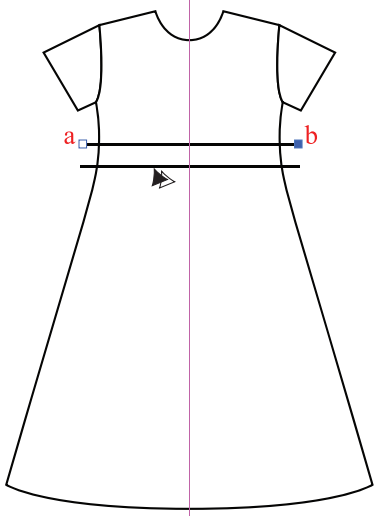
- Remember to click onto **Dress Illustration** layer to continue

Step 18: Draw the Divide Lines

Pen Tool (P)
Selection Tool (V)
Navigator Panel

Reminder – **Navigator** allows you to *navigate* around the specified working area, by clicking on the window and moving; (a hand ( ) will appear) or by using the zoom sliding bar at the bottom of the box



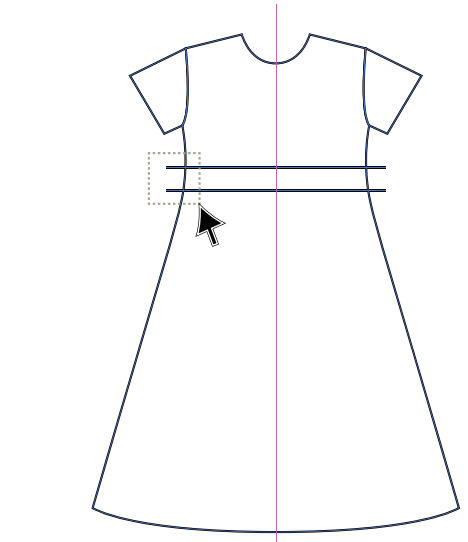


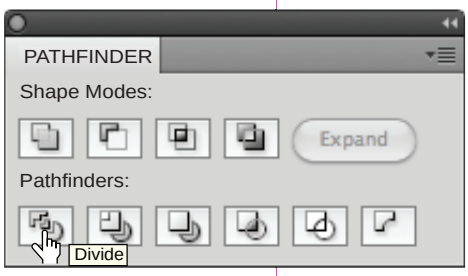
- Select the **Pen Tool (P)**
- Bring the fill box to the front **(X)**
- Remove the colour from the fill box **(/)** ( )

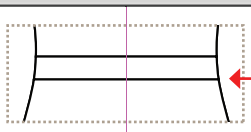
It is important not to have any colour in the fill box when using a line to divide, as a line with colour will be treated like a shape. This would be noticeable in a curved line.

- Click outside the dress shape **a**
- Press the **Shift** key and click again outside the dress shape on the other side **b** – this creates a horizontal line
- Click onto the **Selection Tool (V)** and select the line you have just drawn
- Copy the line by pressing the **Alt/Option** key and a double arrow will appear **( )** (ref page 16). Drag the line down to create a waist panel

DIVIDE AND CHANGE THE FILL COLOUR







Step 19: Divide the Dress Shape

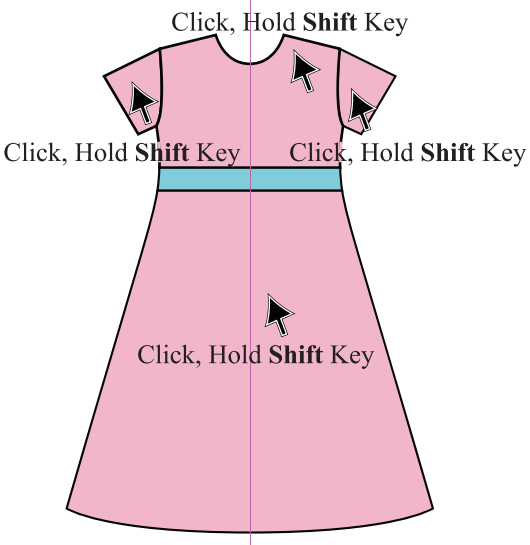
Selection Tool (V)

- Select the dress and ungroup the dress **(Shift Ctrl G/Shift Cmd G)** (ref page 17)
- Click on the outside of the dress and marquee over the dress shape and the divide line with the **Selection Tool (V)**
- Note how the fill box has a question mark (?) in it now ( ): this confirms that the dress has a fill colour and the line has no fill
- Click onto the **Pathfinder Panel** icon in the docking station ( )
- When selected click onto the **Divide** ( )icon in the **Pathfinder** panel

- The segment of both lines that were outside the shape will disappear once the dress is divided (ref page 21)

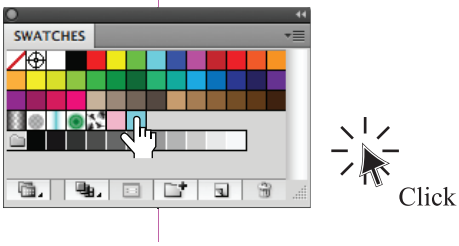
Step 20: Ungroup the Dress Shape

Selection Tool (V)



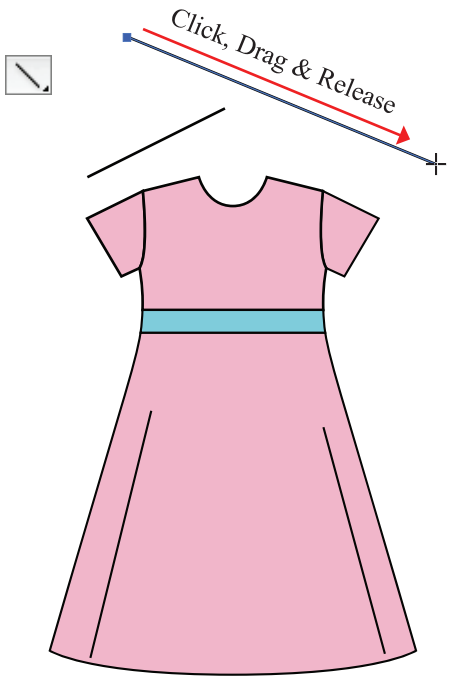
- The dress body is now three separate shapes grouped together
- Select the dress with the **Selection Tool (V)**
- Right click the mouse
  A sub–menu will appear
- Select **Ungroup (Shift Ctrl G/Shift Cmd G)** and the dress will be ungrouped. Click onto the work area to deselect the dress
- Click onto the sleeves, bodice and skirt, holding down the **Shift** key to pick up more than one object at the same time

- Bring the fill box to the front **(X)** ( )



- Select a **Fill** colour from the **Swatches** panel ( )
  Select the waist panel and select another colour from the **Swatches** panel ( )
- Click away to deselect
- Now marquee over the whole shape and **Group (Ctrl G/Cmd G)** again

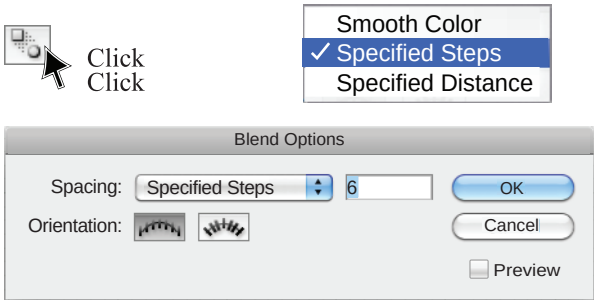
ADD HEM FULLNESS



Step 21: Drape Lines

Line Segment Tool (\)

- The **Line Segment Tool** (\) is an excellent tool to use when you want to draw simple straight lines. This tool does not require you to deselect and select the tool each time you draw an open line, like the **Pen Tool**
- We use this tool to draw drape lines because it enables you to draw multiple and random straight lines with ease
- Click onto the **Line Segment Tool** (\), click onto the point where you would like your line to start, hold down the left mouse button and drag the line to the endpoint. Simply let go of the left mouse button and click onto the next position to start drawing another line
- Draw a few lines to represent draping in the skirt of the dress, stop these lines just above the hem line



Step 22: Blend the Drape Lines

Blend Tool (W)

- Double-click the **Blend Tool** in the tool box and a dialogue box will appear
- In the **Spacing** option select **Specified Steps**
- Type **6** into the box next to **Spacing**
- Select **OK**
- There are a few points to be aware of when using the **Blend Tool:**

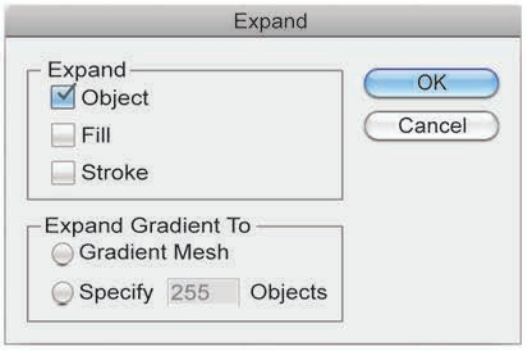
❶ When the **Blend Tool** rests on an object the square at the top end of the tool is white, this is not a problem if you are blending objects

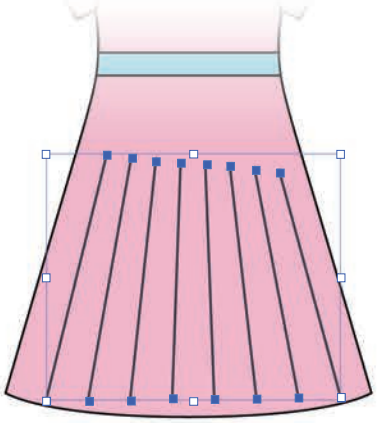
❷ When the **Blend Tool** rests on an anchor point the square at the top end turns black. This is what you want when blending lines only

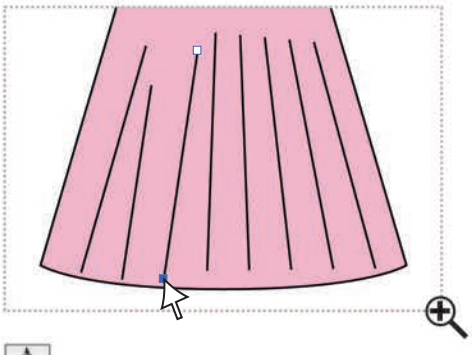
❸ The **Blend Tool** is still selected. Rest the cursor on the top of the first line and when it turns black click once onto the line, take note that there is a cross next to the blend cursor ( )

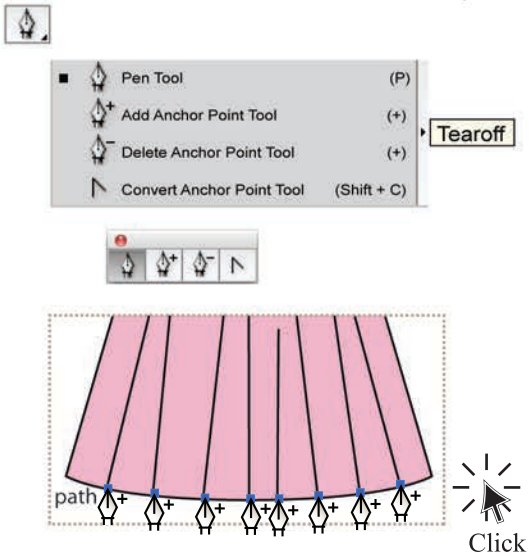
❹ Rest the cursor on the top of the second line and when the blend tool is black and has a plus sign next to it ( ) click again to blend the two lines

- Deselect
- The two lines with the six lines between them are ‘one object’ and can be selected as one. Select the object and change the stroke weight to **0.5pt**







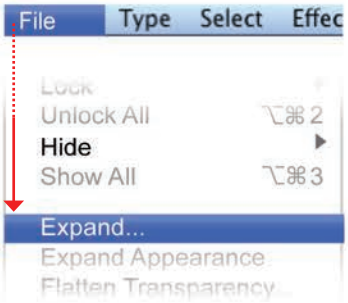


Step 23: Edit a Blended Object

Direct Selection Tool (A)

For editing purposes it is best to 'Expand' the blended object.

- Go to **Object** in the menu bar and a drop-down menu will appear, select **Expand** to reveal a dialogue box



- In the **Expand** dialogue box you have the option to select Expand Object or Fill or Stroke or *all three.* We are just expanding the **Object**, this will turn the blended object into editable lines that are grouped
- You can now adjust each drape line with the **Direct Selection Tool (A)**, making sure to end each line just above the hem edge
- We will use these lines as a guide to shape fullness into the skirt hem

Step 24: Add Anchor Points

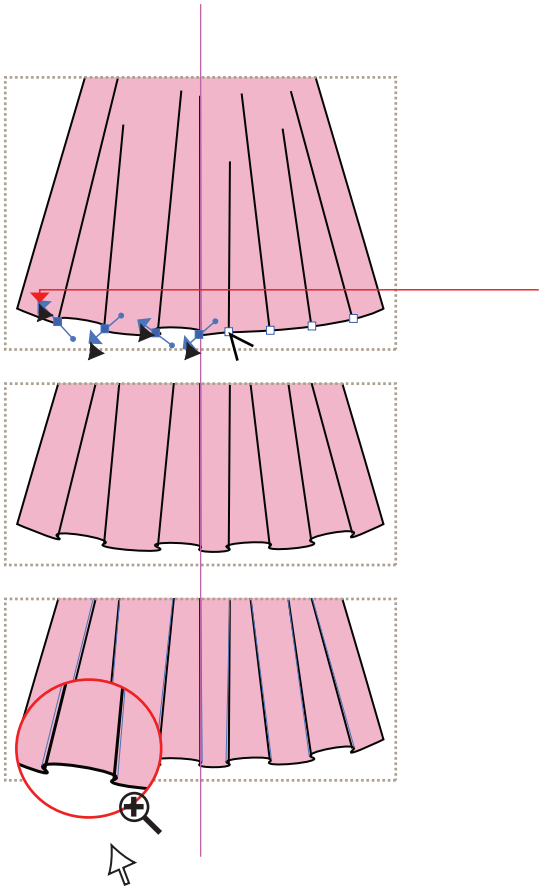
Add Anchor Point Tool (+)

- Select the **Pen Tool (P)**
- Click onto the black arrow at the corner to access the **Tearoff** options
- This will be a good time to have **Smart Guides** on **(Ctrl U/Cmd U)** on (ref page 20)
- Select the **Add Anchor Point Tool (+)**
- Rest the cursor on the hem stroke line of the dress near the drape lines, make sure the word 'path' comes up and the hem, not the drape line is highlighted and then click

If you miss the path an error message will come up, just click OK and try again.

- Deselect **(V)** once you have added all the points

ADD HEM FULLNESS



Step 25: Convert Anchor Points

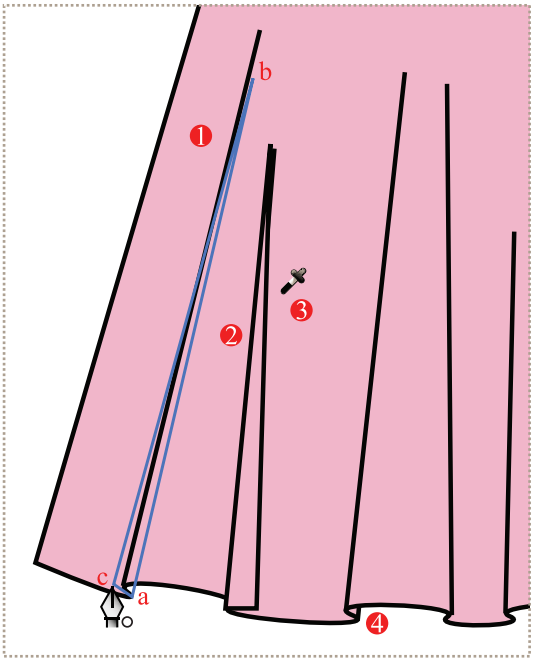
Convert Anchor Point Tool (Shift C)
Direct Selection Tool (A)

- Once you have added the **anchor points** you can convert them
- Select the **Convert Anchor Point Tool (Shift C)** and click onto the first anchor point and drag as indicated in the illustration
- Continue to do this to all the anchor points, adding movement and fullness to suit both the style and the fabric quality you are representing

- Zoom in to the hem **(Ctrl +/Cmd+)**
- Adjust and position the drape lines with the **Direct Selection Tool (A)**

Step 26: Fold Back and Arrange the Layer Order

Pen Tool (P)
Selection Tool (V)
Eyedropper (I)



- Create folds to go behind each drape using the drape line as a guide (this may not always be necessary):

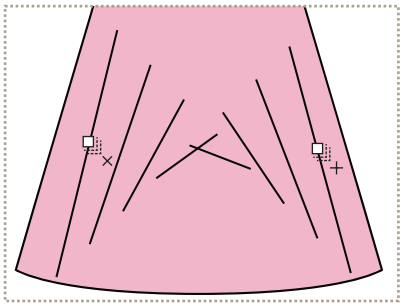
❶ Select the **Pen Tool (P)**
The **stroke** only should have colour ( )
- Click onto the fold back of the drape **a**
- Click onto the skirt next to the drape line **b**
- Click to the left **c** and close the shape by clicking back onto **a**

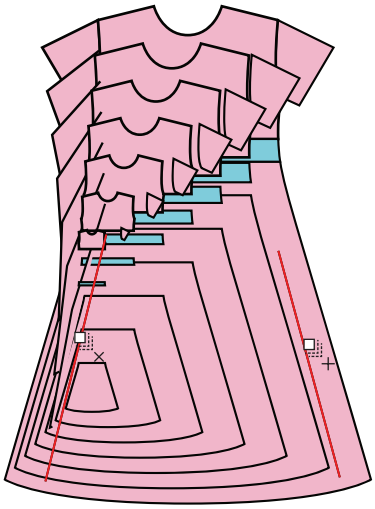
❷ Repeat this process for all the drapes

❸ Click onto the **Selection Tool (V)** and select each shape, holding the **Shift** key down at the same time
- Keeping all four shapes selected, click onto the **Eyedropper (I)**
- Place the **Eyedropper** ( ) on the skirt to copy the **Fill** and **Stroke** colours and properties to the selected fold-back pieces ( )
- Do *not* deselect

❹ The fold-back pieces are still selected and need to go behind the skirt
- Right click the mouse and a pop-up menu will appear, select **Arrange**
- Click onto **Send To Back (Shift Ctrl [/Shift Cmd [)**

TROUBLESHOOT BLEND TOOL AND EXPAND





Trouble with the Blend Tool:

Q: When I try to blend two lines the middle lines get distorted. Why is this?

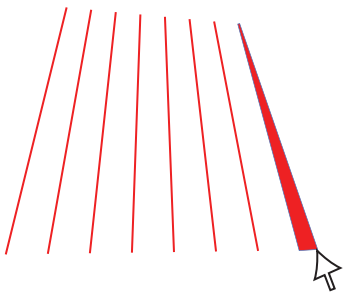
A: You have rested the cursor on the middle of the lines you are trying to blend ( )

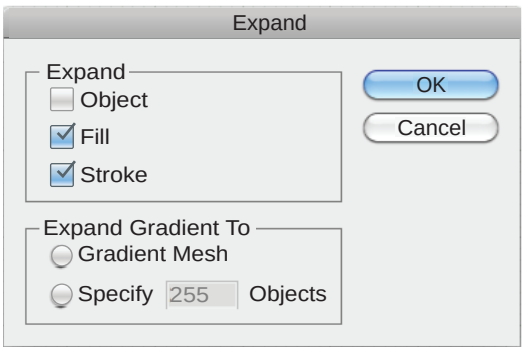
Solution: When blending lines and not objects, like buttons (ref page 58) it is best to rest the cursor on an **anchor point** ( ) (ref page 46)

Q: When I try to blend two lines the whole shape gets distorted. Why is this?

A: You have rested the cursor on the line and the grouped dress shape

Solution: When blending lines and not objects, like buttons (ref page 58) it is best to rest the cursor on an **anchor point** ( ) (ref page 46)





Trouble with Expand:

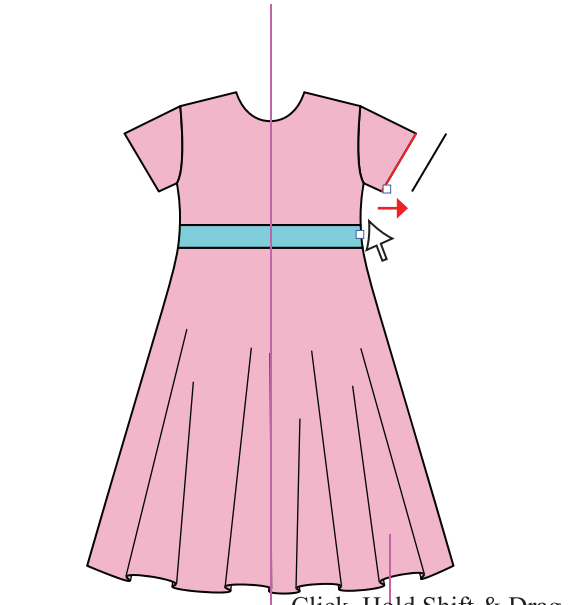
Q: Once I have 'Expanded' an object I cannot edit the line it seems to be a shape. Why is this?

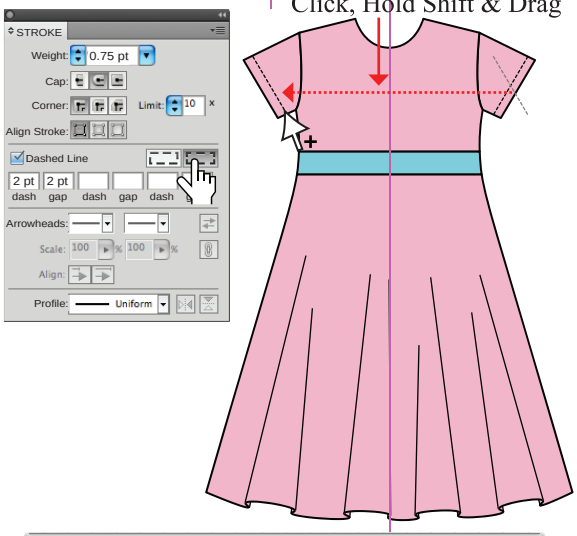
A: You have tried to expand the object twice, the first time expanded the object and the second time expanded the line and made it a filled shape, not a stroke or line anymore

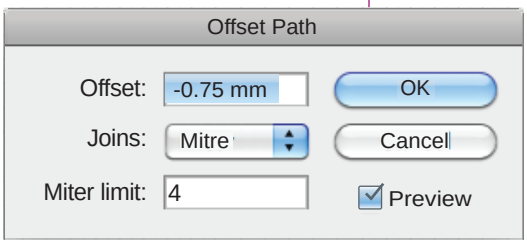
Solution: Take note when you expand, if you see there is no option to expand the object, this is already done

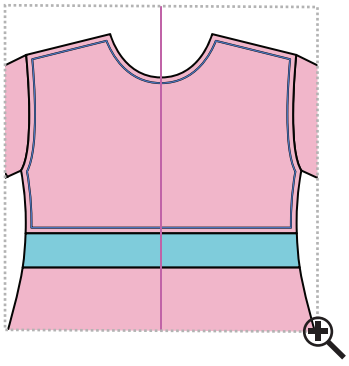
If you have not done too much work since you expanded the stroke you can undo the moves repeatedly until you have the expanded object **(Ctrl z/Cmd z)** to undo an action and **Shift Ctrl z/ Shift Cmd z** to re-do the action

ADD TOP STITCHING (OFFSET PATH)









Step 27: Add Top Stitch to Sleeve Hem

Direct Selection Tool (A)
Group Selection Tool (No keyboard shortcut)

To copy the sleeve edge at the hem:

- Click onto the edge of the sleeve with the **Direct Selection Tool (A)**
- Copy this to the front **Ctrl C**/**Cmd C** and **Ctrl F**/**Cmd F** to copy to the **F**ront (ref page 16)
- Remove the fill ( )
- Do not deselect the hemline
- Move it away from the dress, using the keyboard arrows and increment to move (ref page 14)

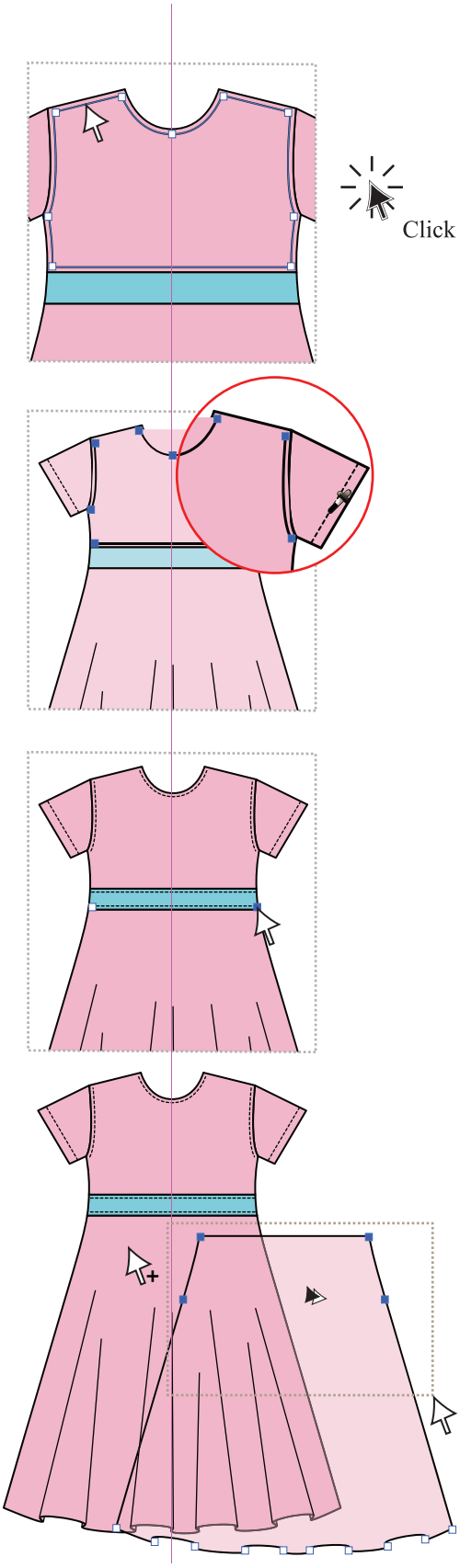
To Create a dashed line:

- Open the **Stroke** panel ( )
- Tick the dashed line box ( ). Fill in numeric values in the **dash** and **gap** boxes. We use: **2 pt dash** and **2 pt gap**
- Select the **Round Cap** ( )
- Change the stroke weight to **0.75 pt**
- Select the second dashed line option, *'Aligns dashes to corners and paths...'*
- Select the sleeve hem stitching with the **Group Selection Tool**, as the dress is still grouped
- Move the stitching into place. Once it is in place reflect and copy it (ref page 26)
- Move the copied stitch line over either with the keyboard arrows or move the stitching and hold **Shift** as you drag it into place

Step 28: Add Top Stitch to the Bodice

Group Selection Tool (No keyboard shortcut)

- Select the bodice with the **Group Selection Tool**
- Click onto **Object** in the menu bar
  Path → **Offset Path...**
- An option box will appear
- Type in the **Offset** amount. Because we want the offset piece to be smaller than the original, it will be a *negative* number
- Check the preview option to see if the offset amount is enough
- We have –0.75 mm in this instance check **Preview** before you accept the offset amount then select **OK**
- This will create a new bodice inside the original that is 0.75mm smaller all the way around the bodice



Step 29: Bodice Topstitch

Direct Selection Tool (A)
Group Selection Tool (No keyboard shortcut)
Eyedropper (I)

- Click onto the centre of the left shoulder with the **Direct Selection Tool (A)**

*As you can see in the illustration, all the anchor points are inactive and only the 'path' (line) between the 'anchor points' will be deleted when you press 'delete' **ONCE** only.*

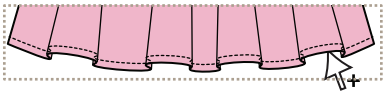
- Press delete, deselect and repeat this for the right shoulder and sides of the bodice
- What is left is a line for the neckline stitching, the armhole stitching and the waist stitching, still with a fill and stroke ( )
- Select these with the **Group Selection Tool,** click onto each and hold down **Shift** to pick up all the stitch lines at the same time
- Click onto the **Eyedropper (I)** and *'eyedrop'* the sleeve hem stitch line
- This will copy all the qualities of that line: *'No fill, 0.75 pt, Round Cap etc...' (ref step 25)*
- Move the waistband stitching onto the waistband, copy it and adjust the length of the line to fit the panel

Step 30: Skirt Hem

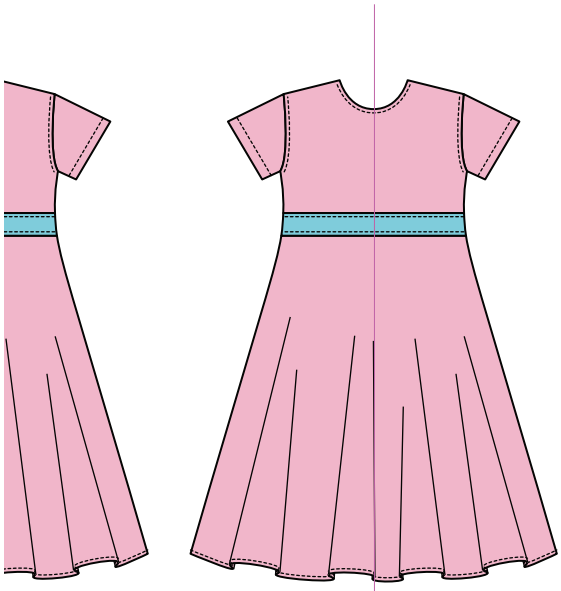
- Select the skirt only with the **Group Selection Tool** and press the **Alt** key at the same time to copy the skirt
- Drag the copied skirt clear of the dress
- Marquee over the top anchor points with the **Direct Selection Tool (A)**
- Delete the selection

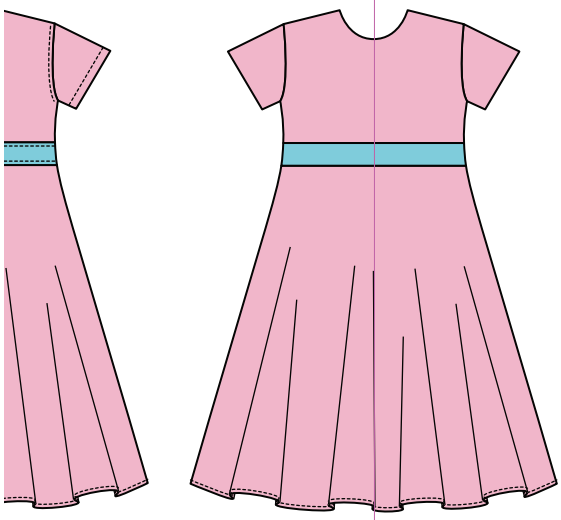
Only press the Delete key **ONCE** *or you will delete the whole skirt.*

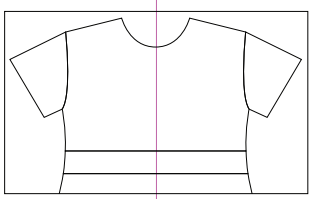
- Select the hem with the **Group Selection Tool**, click onto the **Eyedropper (I)** and copy the properties of the bodice dashed line
- Move the stitch line back onto the skirt with the **Group Selection Tool**

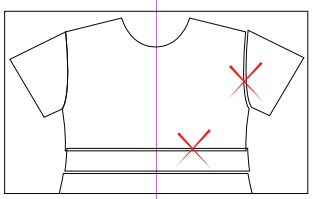


COMPLETED DRESS, CREATE ALTERNATE STYLE









Step 31: Completed Dress

Selection Tool (V)

*The dress is now complete. Double-check you have **Grouped** the dress and **Save** the file* **Ctrl S/Cmd S**

- Select the dress **Selection Tool (V)**
- Holding down the left mouse button, start to drag the dress to copy it
- Only once you have started dragging the object, press the **Alt/Option** key. A double arrow will appear (⮞)

You will use this dress copy to create a new style.

Step 1: Prepare the Dress to Create a New Style

Selection Tool (V)

- Select the dress and **Ungroup** it completely **Shift Ctrl G/Shift Cmd G**. You may need to do this a few times
- Select all the bodice top stitching and **Delete** it – press the **Delete** key on your keyboard

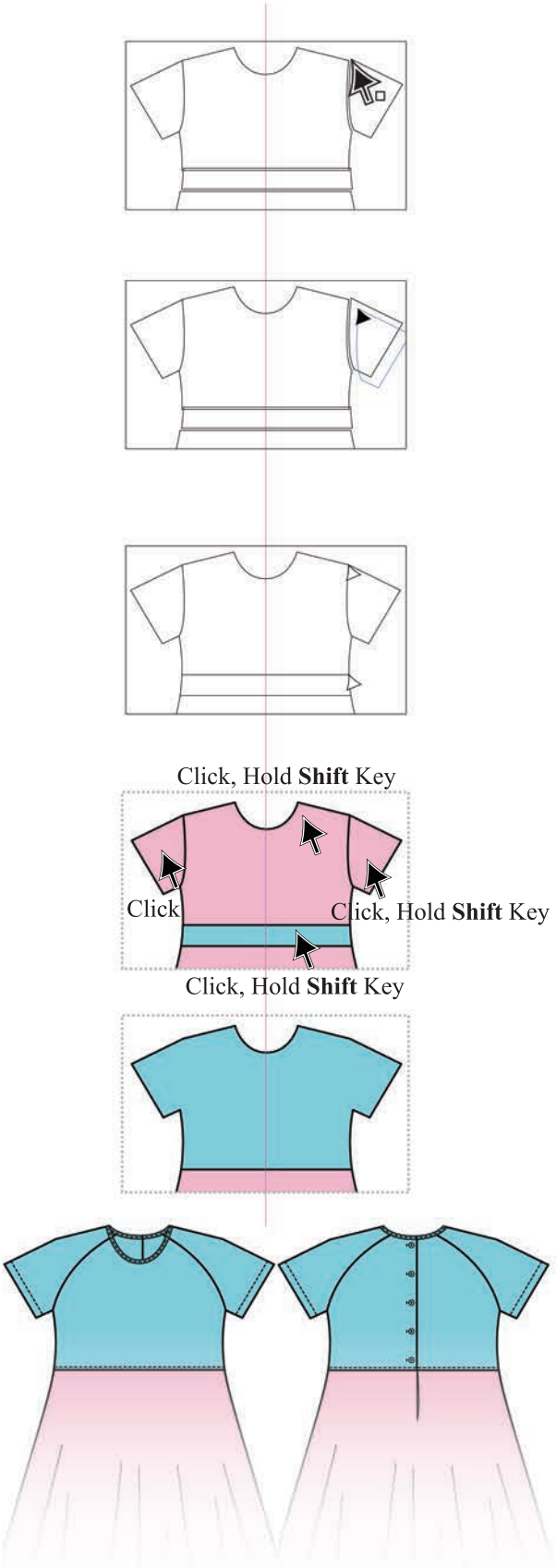
*Holding down **Shift** allows you to pick up more than one item at a time without deselecting the previous item.*

- It is now time for you to become acquainted with the ***Preview*** and ***Outline*** views

Step 2: Preview and Outline

*Switching between **Outline** and **Preview** is a good practice to develop **Ctrl Y/Cmd Y***
*The **Outline View** can also be accessed through the menu bar **View** ⟶ **Preview/ Outline***

- Select **Outline** view and you will be able to view the dress you have drawn without any attributes at all, that is, no stroke weight and no fill colour
- You can now see whether your drawing is accurate
- Note the difference between the two examples illustrated – one is completely aligned whilst the second is not aligned



Step 3: Re-alignment

Selection Tool (V)

- Click onto the **Selection Tool (V)**
- Rest the cursor/arrow on the **anchor point** you wish to select

*It is very important to pick the piece up by the **anchor point**. You will know that the cursor is on the **anchor point** when a white square appears next to the cursor.*

- Now click, hold the mouse down and start to move the piece. The arrow changes shape and is black
- When the sleeve **anchor point** is aligned with the armhole **anchor point**, the arrow turns white
- Deselect

If the arrow does not turn white or the anchor points do not 'Snap to point' you will need to enable this feature (ref page 6).

Step 4: Add to Shape Area

Selection Tool (V)

To go back to **Preview** view:

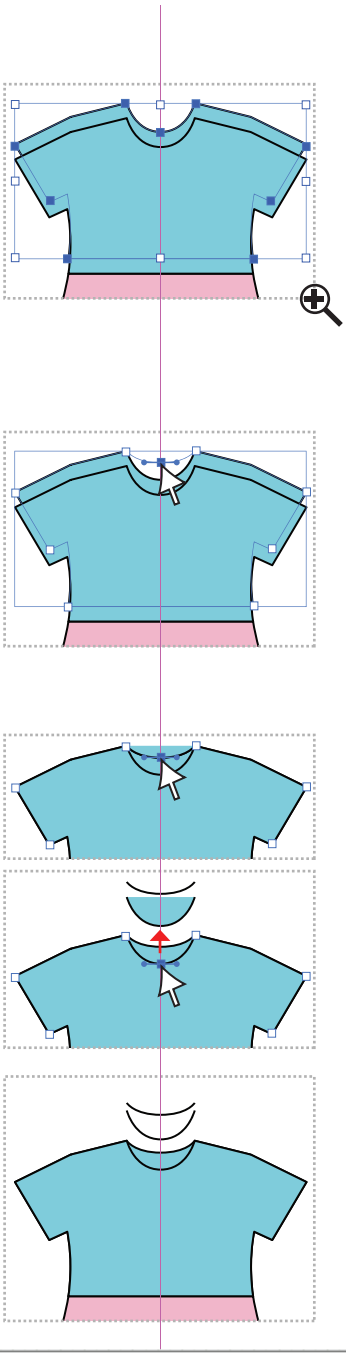
- Menu bar **View** ⟶ **Preview (Ctrl Y/Cmd Y)**
- Select the bodice, sleeves and waistband with the **Selection Tool (V)**, holding the **Shift** key down as each piece is selected
- Click onto the **Pathfinder Panel** icon in the docking station ( )
- Click onto the **Unite** option ( )

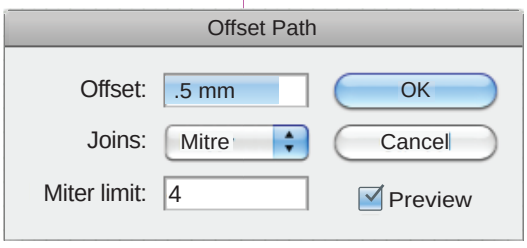
- The bodice and the sleeves will become one shape

The style you are going to create next will need a bit of planning and forethought. The style is a button back, raglan sleeve bodice with a bound neckline and you are creating both the front and back.

You will need to plan to have the following components:

- *The full front, created in Step 5*
- *A full back created from the front*
- *Front and back neck binding, created before we divide the sleeves from the bodice.*





Step 5: Create the Back Bodice

Selection Tool (V)
Direct Selection Tool (A)

- Select the bodice with the **Selection Tool (V)**
- Copy the bodice to the back
  Ctrl C/Cmd C – to copy
  Ctrl B/Cmd B – copies the object to the **B**ack
- Check that the **Keyboard Increment** is 2mm (ref page 14)
- Nudge the bodice up, using the keyboard arrows, possibly 4mm or 6mm. Do *NOT* move this manually as it is easier to re-align when you use the keyboard arrows

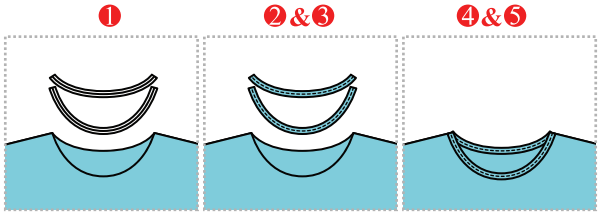
- Select the centre front neck anchor point with the **Direct Selection Tool (A)**
- This can be nudged up either with the keyboard arrows or manualy, holding **shift** to make sure the **anchor point** moves up in a straight 90° line
- Click onto the **Selection Tool (V)** and nudge the full shape back into place behind the front bodice

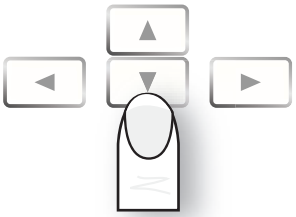
Step 6: Create the Neck Binding

Selection Tool (V)
Direct Selection Tool (A)

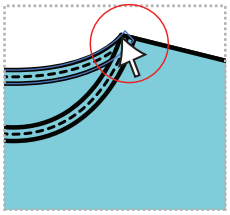
- Click onto the **Direct Selection Tool (A)** and select the centre back **anchor point** (note that the anchor points at the shoulder/neck junction are inactive)
- You can copy this line to the front now
  Ctrl C/Cmd C – to copy
  Ctrl F/Cmd F – copies the object to the **F**ront
- Select the line with the **Selection Tool (V)** and move this off the body using the keyboard arrows
- Remove the fill ( )
- Follow the same procedure with the front neckline

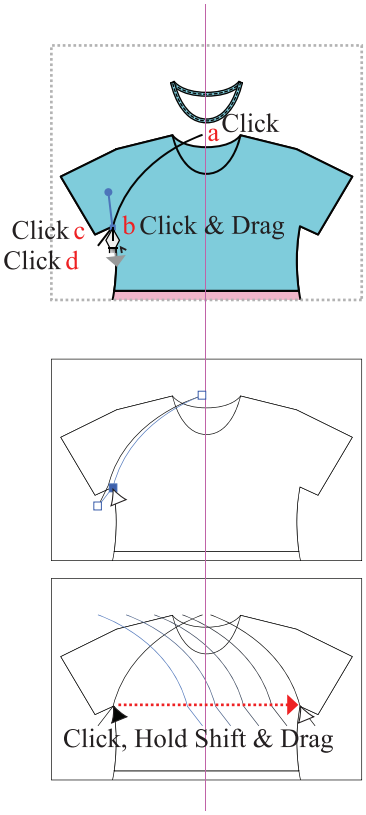
- Select both lines and go to **Object** in the menu bar
  Path → Offset Path...
- An option box will appear
- Type in the **Offset** amount (we have 0.5mm)
- Check the **Preview** option to see if the offset amount is enough before you accept
- Click onto **OK**





Note: If you have not moved anything manually at all you will see how effective and efficient it is to use the keyboard arrows and a low increment as much as you can (ref page14)





Step 7: Neck Binding

Selection Tool (V)
Direct Selection Tool (A)

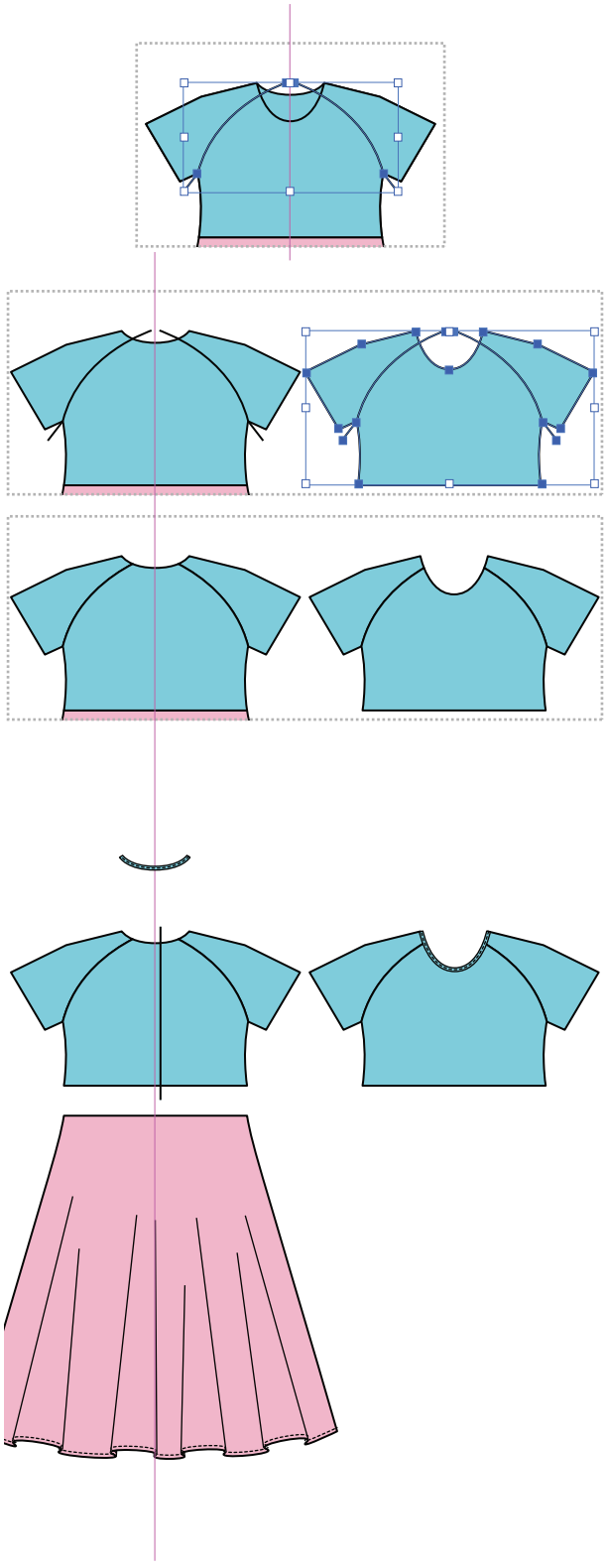
❶ The binding has been created
❷ Only the offset path lines are selected. You can put a fill colour in the binding ( )
❸ Select the line in the centre of each binding and turn it into a stitch line with the same values as the stitch line on page 43 '*No fill, 0.75 pt, Round Cap*'
❹ Group the front binding and top stitch and group the back binding and top stitch
❺ Marquee over the binding with the **Selection Tool (V)** and move the binding back onto the neckline with the keyboard arrows.Once the neck binding is back on the bodice you can carefully align the binding with the shoulder line using the **Direct Selection Tool (A)**

Step 8: Raglan Sleeve Design Line

Pen Tool (P)
Selection Tool (V)
Direct Selection Tool (A)

- Move the neck binding off the bodice and deselect
- Remove the fill colour from the fill box **(/)** ( ) to draw the raglan design line:
- Select the **Pen Tool (P)** and click outside the bodice front and back at the neck **a**,
- Click to the underarm junction and drag **b**
- Click back into the anchor point to convert it **c**
- Click outside the bodice shape **d**
- Select **Outline** view **(Ctrl Y/Cmd Y)** (ref page 50)
- Click onto the underarm **anchor point** with the **Direct Selection Tool (A)**
- Line up the underarm **anchor point** of the raglan design line with the underarm junction of the bodice. Remember '*snap to point*' (ref page 53)
- Click onto the **Selection Tool (V)** and select the raglan design line and **Reflect** and **Copy** it (ref page 27)
- Move the style line over to the opposite side by clicking on to the underarm junction anchor point. Hold **Shift** down and move the line across until the black arrow turns white to denote that the two anchor points have 'snapped' together

DIVIDE THE FRONT AND BACK BODICES



Step 9: Divide the Front and Back Bodices

Selection Tool (V)

- Go back to **Preview** view **Ctrl Y/Cmd Y** (ref page 50)
- Click onto the **Selection Tool (V)** and select the two raglan design lines. Copy them to the back **Ctrl C/Cmd C** and **Ctrl B/Cmd B**

- Deselect and then select the front bodice, hold the **Shift** key down and select the raglan style lines by clicking on to each one
- Move the front bodice and the raglan style lines clear of the back bodice with the keyboard direction arrows

- Marquee over the front bodice and raglan design lines with the **Selection Tool (V)**
- Click onto the **Pathfinder Panel** icon in the docking station ( )
- Once the panel is open click onto the **Divide** option ( )
- Repeat the same process for the back

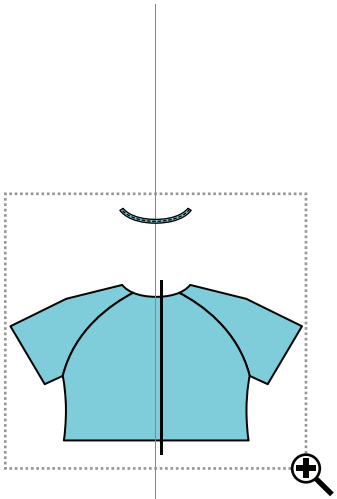
Step 10: Create a Back Bodice with a Buttonstand

Line Segment Tool (\)

- Move the front neck binding into place with the keyboard direction arrows
- **Group Ctrl G/Cmd G** the skirt and move it down away from the back bodice
- **Ungroup Shift Ctrl G/Shift Cmd G** the back bodice

You may remember that when we divide an object the final pieces are all grouped (ref page 21).

- Select the **Line Segment Tool (\)** and draw a vertical line at the centre back allowing for a buttonstand overlap. Start and finish the line outside the bodice, as this line will be used to divide the shape
- Only have a stroke in the line, no fill ( )

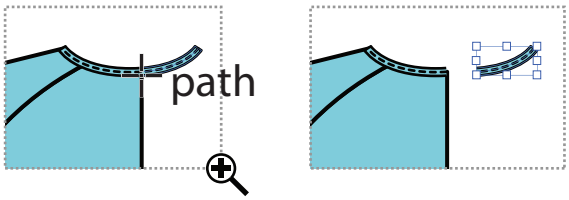


Step 11: Back Bodice (cont'd)

Selection Tool (V)
Group Selection Tool (No keyboard shortcut)

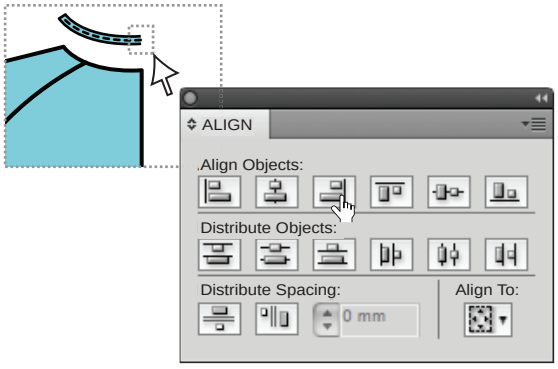
- Select the front bodice and vertical line with the **Selection Tool (V)**, holding the **Shift** key down as each piece is selected
- Click onto the **Pathfinder Panel** icon in the docking station ( )
- Click onto the **Divide** option ( )
- Select the bodice on the right with the **Group Selection Tool** and press the **Delete** key to delete it
- Move the front neck binding down to the bodice

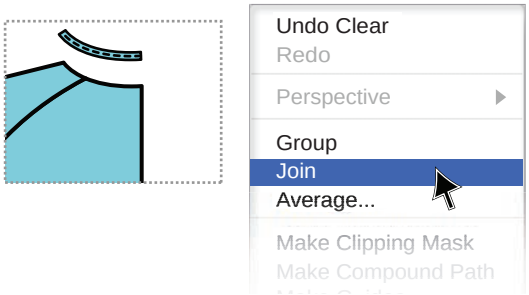
You will notice that the binding is behind the centre bodice. This is a result of the dividing line being created 'after' the binding, when the shape was divided it altered the layer order of the bodice to be on the same layer as the dividing line (ref page18).
Select the binding and **Bring to Front Shift Ctrl]/ Shift Cmd]** (ref page 18)



Step 12: Back Neck Binding

Zoom Tool (Z)
Selection Tool (V)
Scissor Tool (C)
Direct Selection Tool (A)

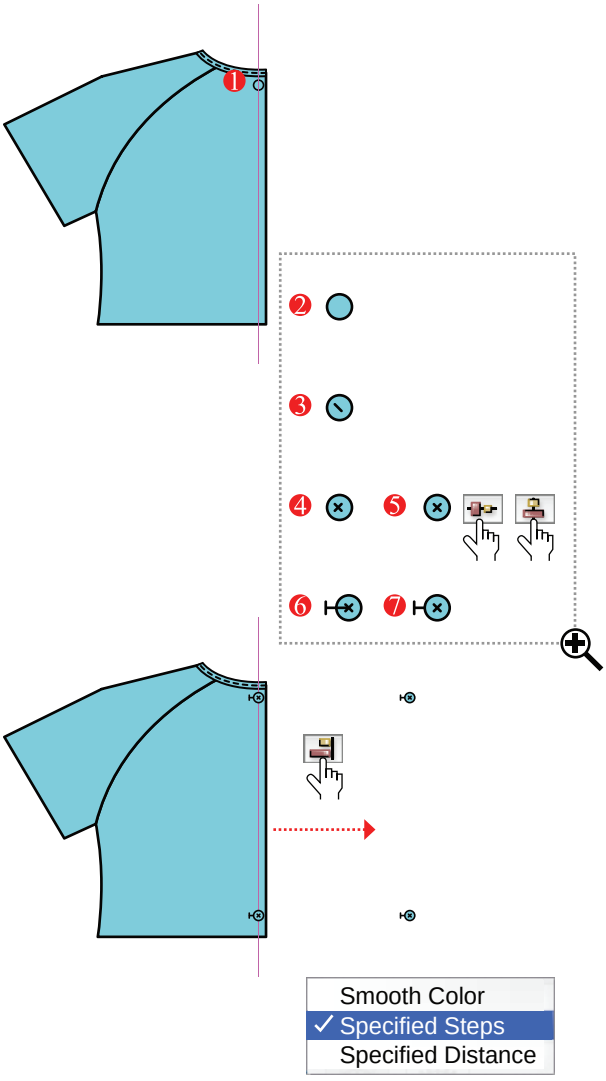


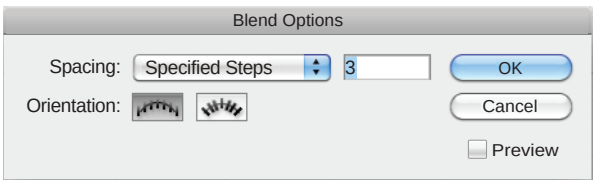


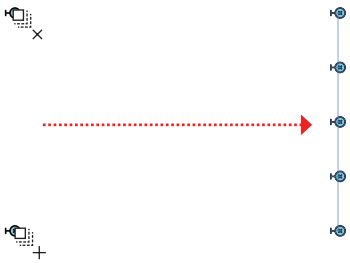
- Activate **Smart Guides** now (ref page 20)
- Zoom **Zoom Tool (Z)** right in to the front neckline
- Click onto the **Scissor Tool (C)** and rest the cross hair on the binding edge, closest to the bodice and in line with the buttonstand edge. When the word *'path'* appears click to cut the line
- Repeat this for the stitch line and the top side of the binding
- Select the overhanging binding and delete it
- Move the binding clear of the bodice
- Marquee over the open edge of the binding with the **Direct Selection Tool (A)**
- Open the **Align** ( ) panel and **Horizontal Align Right** to align the **anchor points**, deselect
- Select the two open ends of the binding with the **Direct Selection Tool (A)**, right click to reveal the pop-up menu and **Join** the **anchor points**
- Deselect

*Holding down **Shift** allows you to pick up multiple **anchor points** at a time.*

CREATE BUTTONS AND BLEND TOOL







Step 13: Create Buttons

Ellipse Tool (L)
Selection Tool (V)
Line Segment Tool (\)

❶ Select the **Ellipse Tool (L)** and draw a circle (ref page 10). It would be best to do this on the centre front bodice to be able to create an accurate size button that matches the bodice

❷ Move the button clear of the bodice

- Match the bodice fill and stroke colours ( ) and make the stroke weight 0.5pt so the button details are not lost

❸ Click onto the **Line Segment Tool (\)** and draw one centre stitch line

❹ & ❺ Reflect this line (ref page 27). Marquee over the button and the stitch lines and align them vertically and horizontally using the **Align** panel. Group the button and the stitch lines

❻ & ❼ Select the **Line Segment Tool (\)** and draw the buttonhole next to the circle. **Arrange** the buttonhole to go behind the button (ref page 18)

- Marquee over the whole button and group it **Ctrl G/Cmd G**
- Place one button at the centre front neck
- Copy and place another button at the centre front above the waist line and **Horizontal Align Right** ( ) the buttons
- Move the buttons clear of the bodice, using the keyboard direction arrows. Deselect

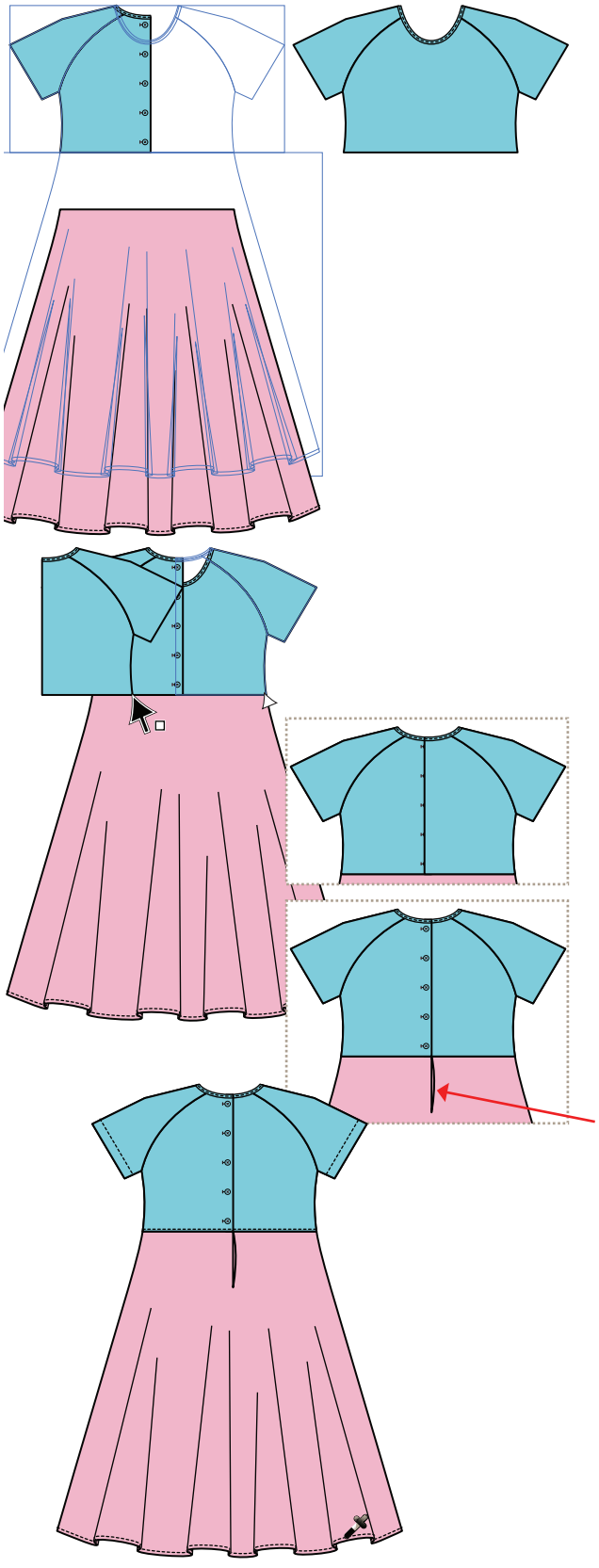
Step 14: Blend Buttons

Selection Tool (V)
Blend Tool (W)

- Double-click the **Blend Tool** in the tool box and a dialogue box will appear
- In the **Spacing** option select **Specified Steps**
- Type **3** into the box next to **Spacing**
- Select **OK**
- The **Blend Tool** is still selected. Click once onto the top button ( ). Rest the cursor on the bottom button and when the blend tool has a plus sign next to it ( ) click again to blend the two buttons
- Deselect

This will place three buttons between the top and bottom buttons.

REFLECT AND COPY THE BACK BODICE



Step 15: Align All Garment Components

Selection Tool (V)

The following steps are best done using the *keyboard direction arrows:*

- Select the blended buttons with the **Selection Tool (V)**: the blended buttons are one object so will be grouped. Move them onto the back bodice. Group the back bodice; include the sleeves, bodice and binding. Do not include the buttons
- Select the front bodice with the **Selection Tool (V)** and move it back behind the back bodice
- Select the skirt and move it up to the bodice

Step 16: Reflect and Copy the Front Bodice

Selection Tool (V)
Pen Tool (P)

- Select the back bodice and **Reflect** it (ref page 27)
- Rest the **Selection Tool (V)** on the righthand waist corner. When the white box appears next to the arrow click onto that **anchor point** and move the bodice over to the opposite side
- When the arrow turns white release

The bodice on the left now needs to be on top of the bodice on the right to show the correct button overlap; left on top of right when the dress is on the body.

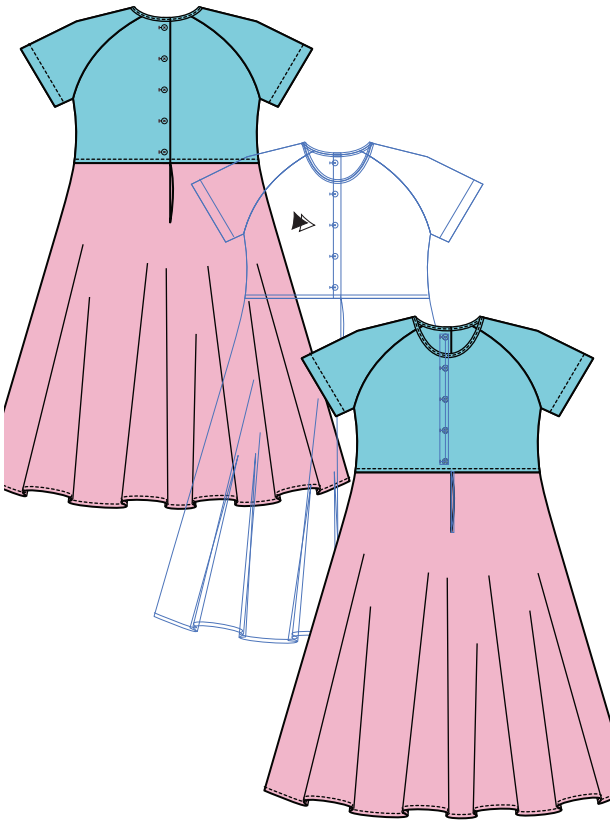
- Select the bodice and the buttons on the right with the **Selection Tool (V)** (hold **Shift** to pick up more than one group of objects at the same time)
- Right click the mouse and select **Arrange Layer Order** (ref page 18) **Bring to Front (Shift Ctrl]/ Shift Cmd])**
- Draw in the back waist opening with the pen tool

Step 17: Add Top Stitching to the Dress

Pen tool (P) or Line Segment Tool (\)
Eyedropper Tool (I)

- Click onto the **Line Segment Tool (\)** and draw in the waist top stitching and the sleeve hem stitching on one side only. Copy the dashed line qualities of the skirt hem by **Eyedropping (I)** that line
- Mirror copy the sleeve hem stitching

CREATING THE BACK VIEW

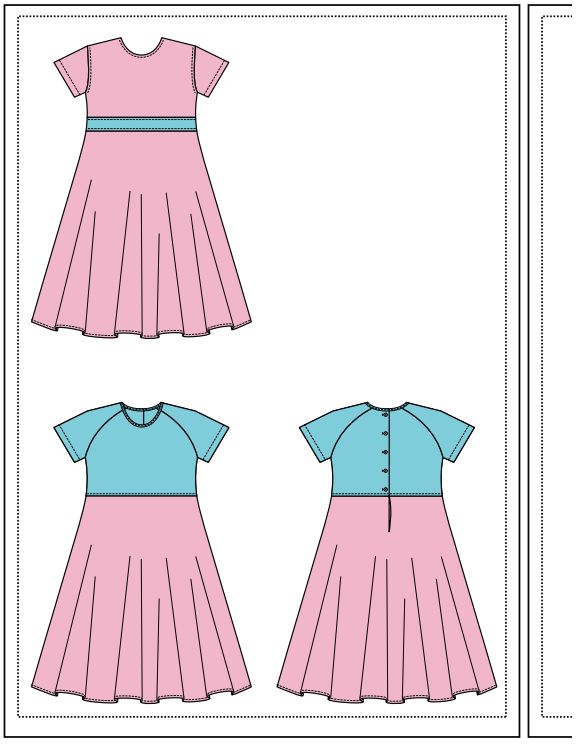


Step 18: Create the Front View

Selection Tool (V)
Group Selection Tool (No keyboard shortcut)

- Click onto the **Selection Tool (V)**, marquee over the whole dress and group it **Ctrl G/Cmd G**
- Do not deselect the dress
- Create a copy of the dress, holding down the **Alt** key and the left mouse button, drag the dress clear of the original
- Click onto the **Group Selection Tool**, select and delete the buttons and waist opening
- You now have a complete front and back view of the dress

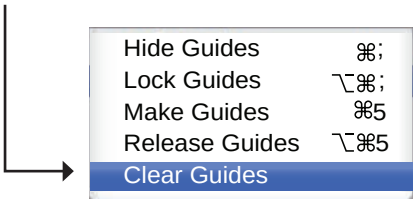
There may be times when under the pressure of time constraints you may be asked to draw the front of a style only for presentation purposes. Naturally we all want to take shortcuts and fill in only the part of the back that is visible! Be warned!!! It is much harder to go back to a style later and do the full back. It is much easier to plan your drawing to include the back even if it is not necessary just yet!



Step 19: Complete the Dress and Layout

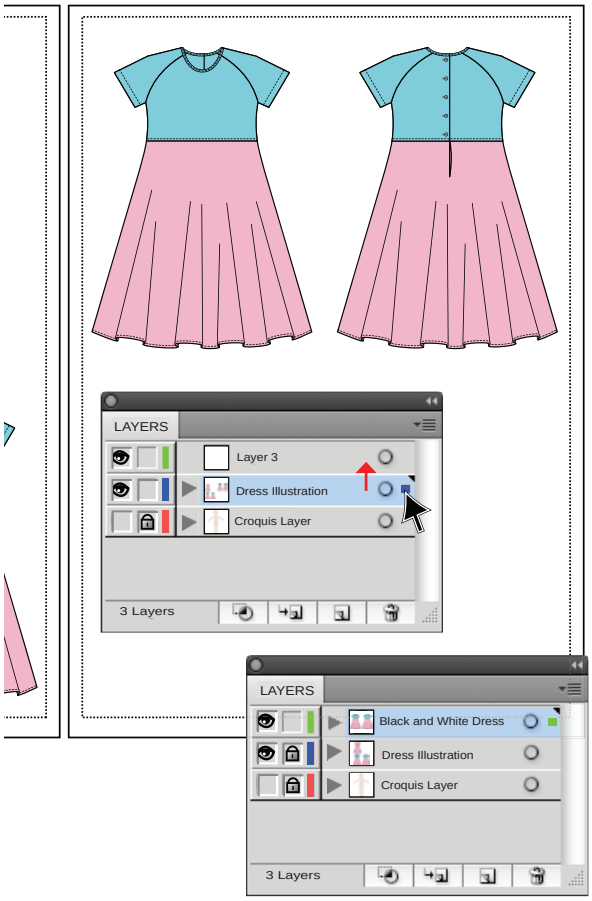
Selection Tool (V)

- The dress is now complete and you can place the two different dresses neatly on the same page
- Remove the **Guide Line** by clicking onto **View** in the menu bar, then select **Guides**
- A sub-menu with options will appear
- Click onto **Clear Guides**



You will now create a black and white specification drawing with a copy of the raglan dress.

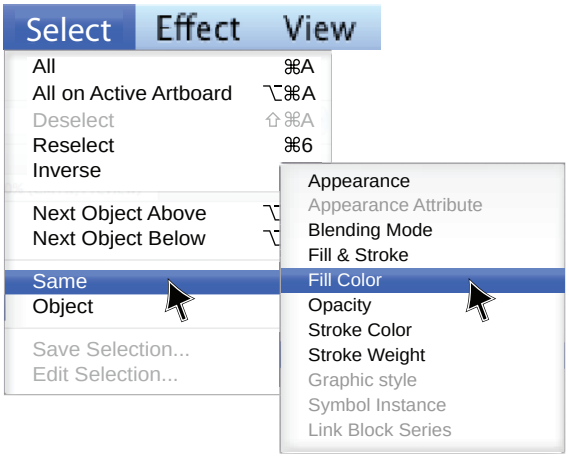
!REMEMBER!
Save the file **Ctrl S/Cmd S**

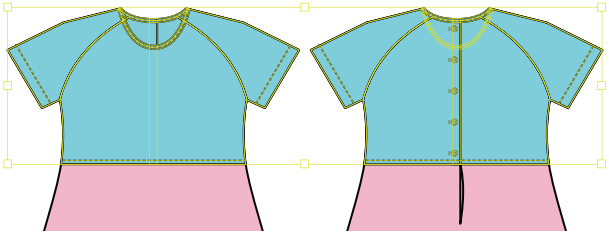


Step 1: Copy the Raglan Dress to a New Layer

Selection Tool (V)

- Marquee over the front and back raglan dresses with the **Selection Tool (V)**
- Copy them, either by pressing the **Alt** key and dragging them clear of the original styles or simply press **Ctrl C/Cmd C** and **Ctrl V/Cmd V**
- Move the copied dresses onto the second page
- You need to move this new dress onto another layer to be able to change colours
- Select the **Layers panel** ( ) from the **Docked panels** bar
- Create a new layer by clicking on to the new layer icon ( ) in the **Layers** panel
- Select the dresses with the **Selection Tool (V).** A blue box will appear in the layer the dress is on ( )
- Click onto this box and, holding the left mouse button down move that box to **Layer 3**. A green box will appear in that layer ( )
- You have now moved the dress onto another layer. Check this by turning the layer visibility icon off ( ) and on ( )
- Lock **Layer 2** ( ). Re-name **Layer 3**
- Detailed instructions appear on pages 38 and 39
- You are now ready to change the dress colours to black and white





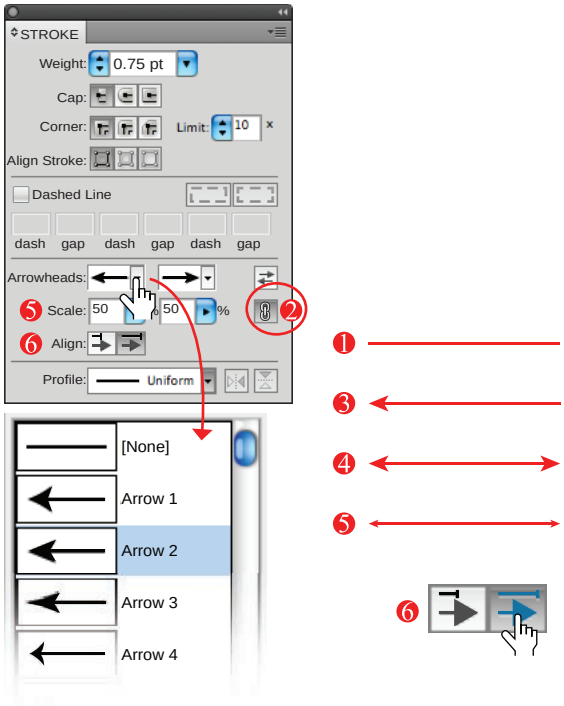
Step 2: Change Colour

Group Selection Tool (No keyboard shortcut)

- Select a bodice panel with the **Group Selection Tool**
- Go to **Select** in the menu bar and select **Same** from the drop-down menu
- A sub-menu will appear. Go to **Fill Color**, this will select anything on that layer only that has the same fill colour ( ). For this style it will be the bodices, sleeves, the binding and the buttons
- Once the blue is selected go to the **Swatches** panel and click onto the white swatch. Everything that was blue is now white ( ). Repeat this process for the skirt

It is important to emphasise here that if the layers you do not want to change colour are not locked you will end up changing everything in that file, defeating the purpose of isolating the dress on a new layer.

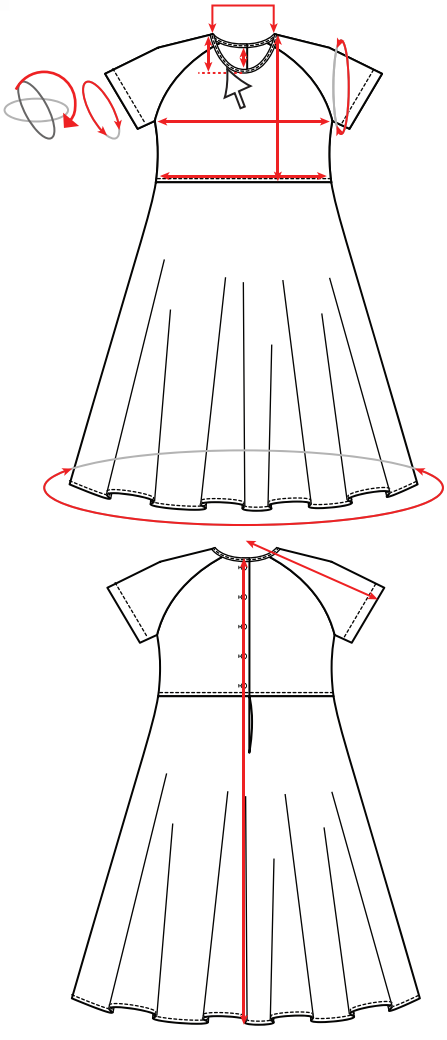
MEASURING LINES WITH ARROWS



Create Lines with Arrows:

Pen Tool (P)
Selection Tool (V)

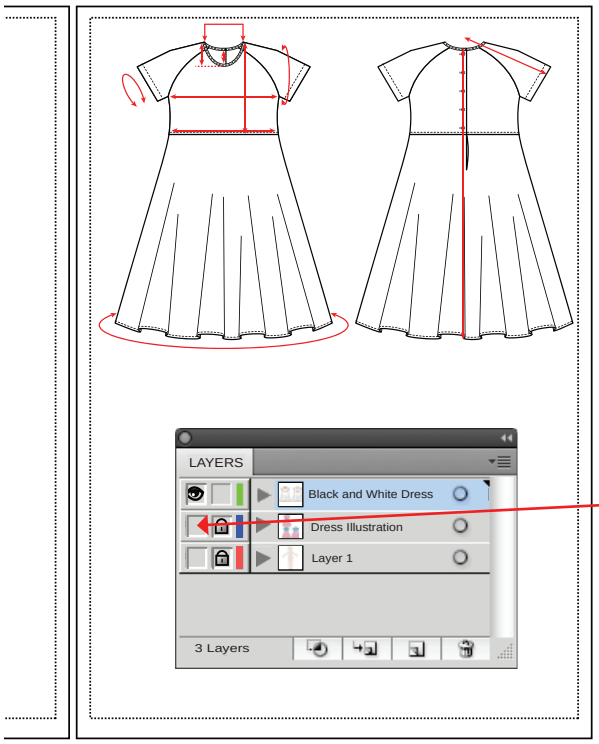
1. Select the **Pen Tool (P)** and draw a straight line. Deselect the **Pen Tool** by clicking on to the **Selection Tool (V)**
2. Before you select the arrowheads click onto the **Link start, end arrow scale** option ( )
3. Click onto the down arrow next to the start point. A selection of arrowheads and tails will pop up. We have selected *'Arrow 2'* for the purpose of this exercise
4. Select the same arrow for the endpoint
5. Scale the arrowheads to 50%
6. Select the option to place the arrow tip at the end of the path. This makes it easier to be more accurate with the arrows



Step 3: Create Measuring Lines with Arrows

Line Segment Tool (\)
Selection Tool (V)
Direct Selection Tool (A)
Rectangle Tool (M)
Ellipse Tool (L)
Scissor Tool (C)
Rotate Tool (R)

- Select the **Line Segment Tool (\)**. Place a contrast colour in the stroke box and no fill ( ). Draw the following measuring lines: across chest line; waist line; neck point to waist line; front neck drop; back neck drop; centre back length; sleeve length
- Select the **Rectangle Tool (M)** and draw a rectangle that stretches the width of the neck. Click onto the **Direct Selection Tool (A)** select the bottom line of the rectangle and press delete once
- Create an ellipse with the **Ellipse Tool (L)** that follows the width of the skirt, as in the illustration. Select the **Scissor Tool (C)** and cut out the middle of the ellipse that goes over the skirt. Do the same for the arm circumference
- Draw the sleeve hem circumference line and rotate it to run parallel to the sleeve hem, cut this to allow for arrows
- Go to the menu bar and click onto **Select** → **Same** → **Stroke Color**. Add **Arrowheads** as above



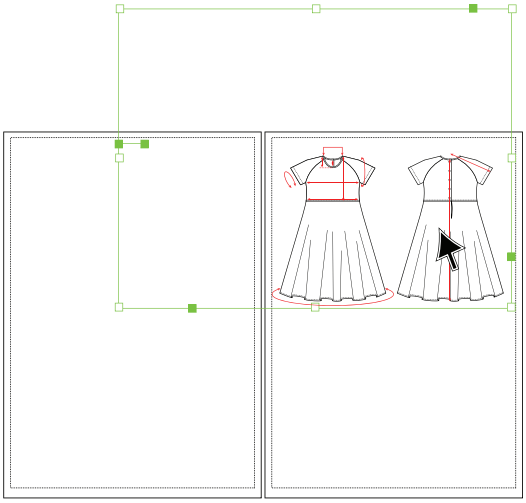
Step 4: Export the File as a JPEG Format

Selection Tool (V)

*When creating an image to be used in an external spreadsheet or costing program it is best to use a universal format that can be read by other computers. A **JPEG** image is a bitmap image that can be easily imported into other software.*

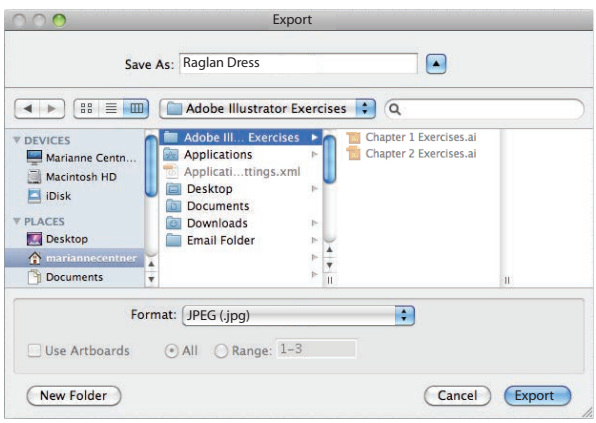
The file needs to be prepared so that only the **Black and White Dress Illustration** is saved as a JPEG file:

1. Make the **Dress Illustration** layer invisible by clicking on to the layer visibility icon ( )
- Only the black and white illustration with the measuring lines should be visible
2. Group the front and all the measuring lines together and then the back and all measuring lines together. Now group both the front and back together. Getting into good habits like this will make things a lot easier when you are creating more complex styling



3. Check if there are any invisible objects or *stray points* in the **Black and White Dress** layer (ref page 30)
- Go to **Select** in the menu bar and click onto **All**
- This will pick up absolutely anything in the file that is not locked or in another locked layer
- Hold the **Shift** key down and click onto the dress to deselect it (once the dress is grouped it is easy to deselect it with one easy click). Any other object that are selected can be deleted
- Simply press the **Delete** key
- **Save this file now (Ctrl S/Cmd S)**

This is still the original file, 'Chapter 2 Illustrator Exercises'. The JPEG file will export as the visible layer only.

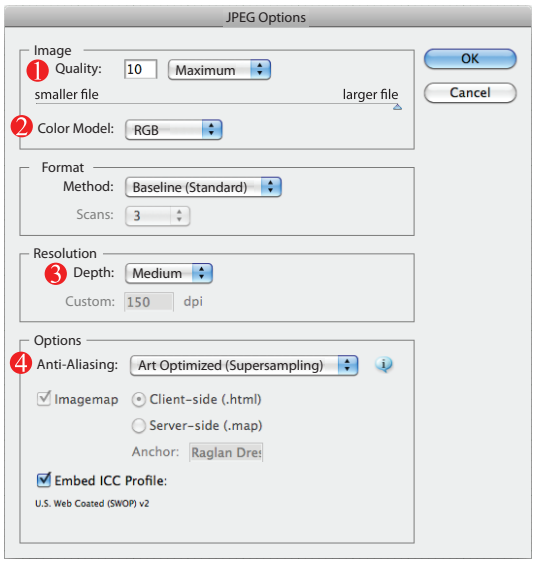


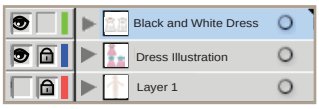
- Go to **File** in the menu bar

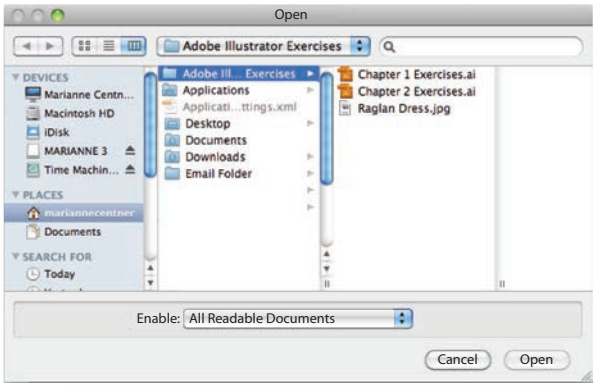
↓

Export

- The folder where all your work is saved will open
- Next to **Save As:** name the file: **Raglan Dress**
- In the **Save As Type/Format** section click onto the down arrow to reveal the different file formats
- Select **JPEG(*.jpg)** – *this is the file extension*
- Click onto **Save/Export**







Step 4: Export the File as a JPEG Format (cont'd)

A dialogue box with options will appear:

1. **Image Quality –** this has a direct impact on the file size and picture clarity
2. **Color Model –** this is the colour mode you are working in and will come up as the file colour mode

3. **Resolution –** this is the dpi; it also has a direct impact on file size and clarity

4. **Anti-Alias –** this will blur the edges of the line

If this is not done, the drawing will be very unclear and 'pixelated'.

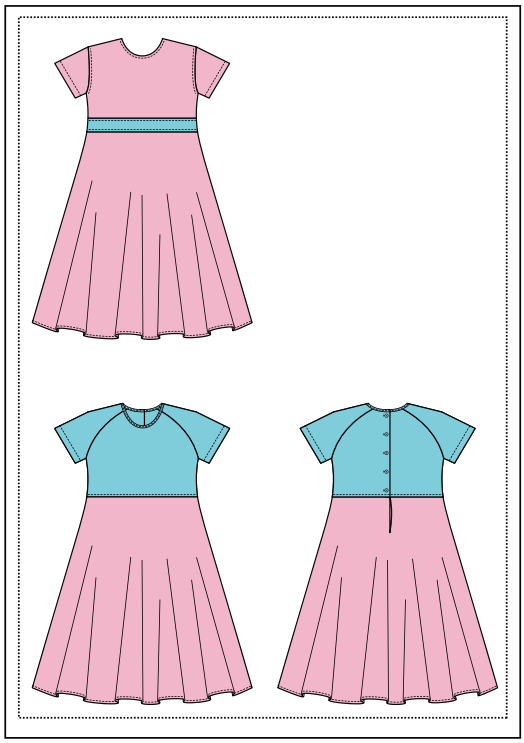
- **OK**
- The dialogue box will close and you will be back in the Illustrator file again
- Make the dress layers visible and **Save** the file again

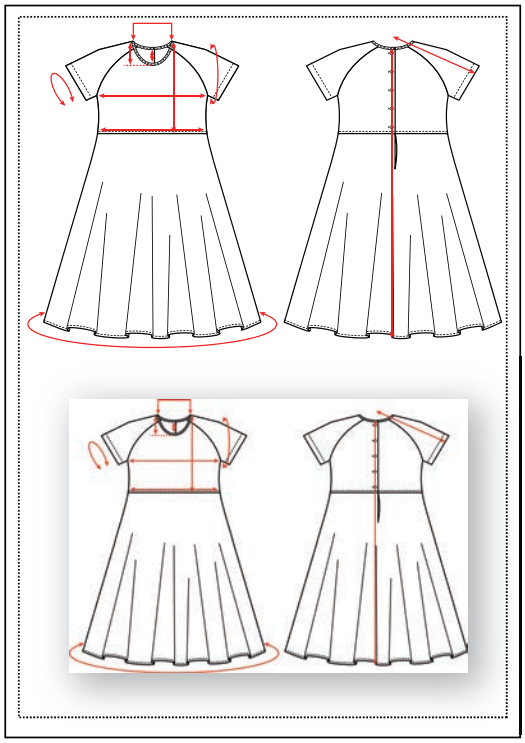
We usually check the file before we place it in another file.

- Click onto **File** in the menu bar
- Select **Open**
- The same directory where the **JPEG** file was saved will open
- Select the **Raglan Dress.jpg** file

The JPEG file format is a bitmap file format. If you did not delete any unwanted objects from this file (ref page 61) the file will look like the first illustration – you would not be able to delete the unwanted objects in Adobe Illustrator now.

It is best to check the file for stray objects before you turn it into a bitmap file as in the second illustration.





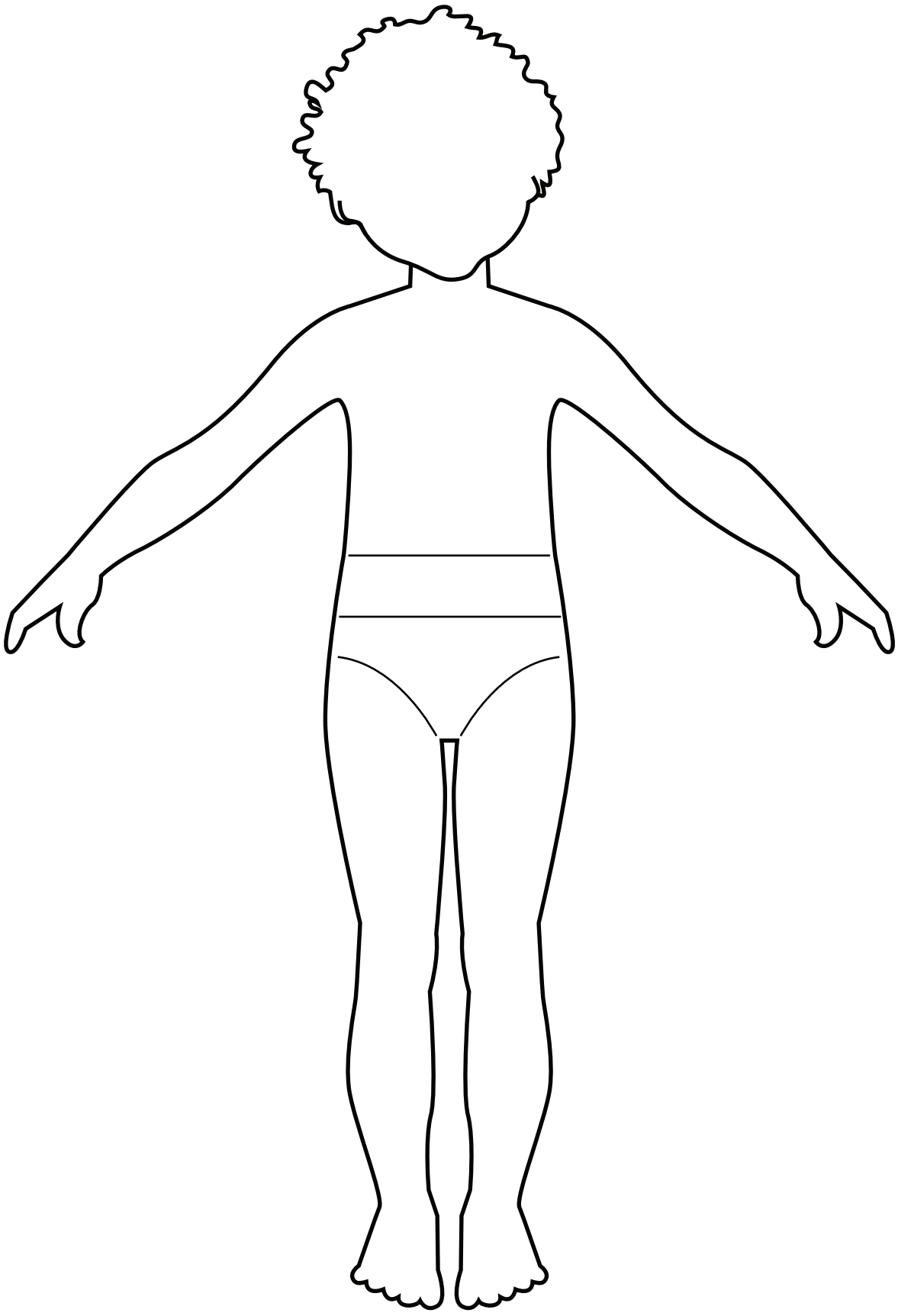
Key Points in Chapter 2:

Chapter 2 has applied all the Tools and Panels you were introduced to in Chapter 1. We have created two simple styles and have been introduced in more detail to some of the panels and tools.

To summarise:

1. You have scanned the croquis and you were introduced to the **Layers panel**
2. You have created a simple dress shape
3. You have learned how to work with separate dress components when you created the sleeve
4. You have divided the dress shape
5. You have reflected the shape and joined the shape
6. You have applied colour and changed stroke size
7. You have applied the different **Pen Tool** options such as: **Add Anchor Point** and **Convert Anchor Point**
8. You were introduced to the **Line Segment Tool** and applied this appropriately
9. You have learned how to create dashed lines
10. Once the dress was complete you copied it and used the same style to create a new style
11. You learned the importance of planning your styling and how helpful correct processes can be: such as shaping a neck line from the centre
12. The **Pathfinder Panel** was applied to both creating one shape from multiple shapes and also dividing the shape
13. Here you were also introduced to the different screen view options, such as the **'Outline View'**
14. In the raglan dress you learned how to create binding and to draw and blend buttons
15. You created both front and back views
16. You used the layers panels to change colours on the black and white raglan dress
17. Finally you have exported the black and white dress to a JPEG format and saved it in your file

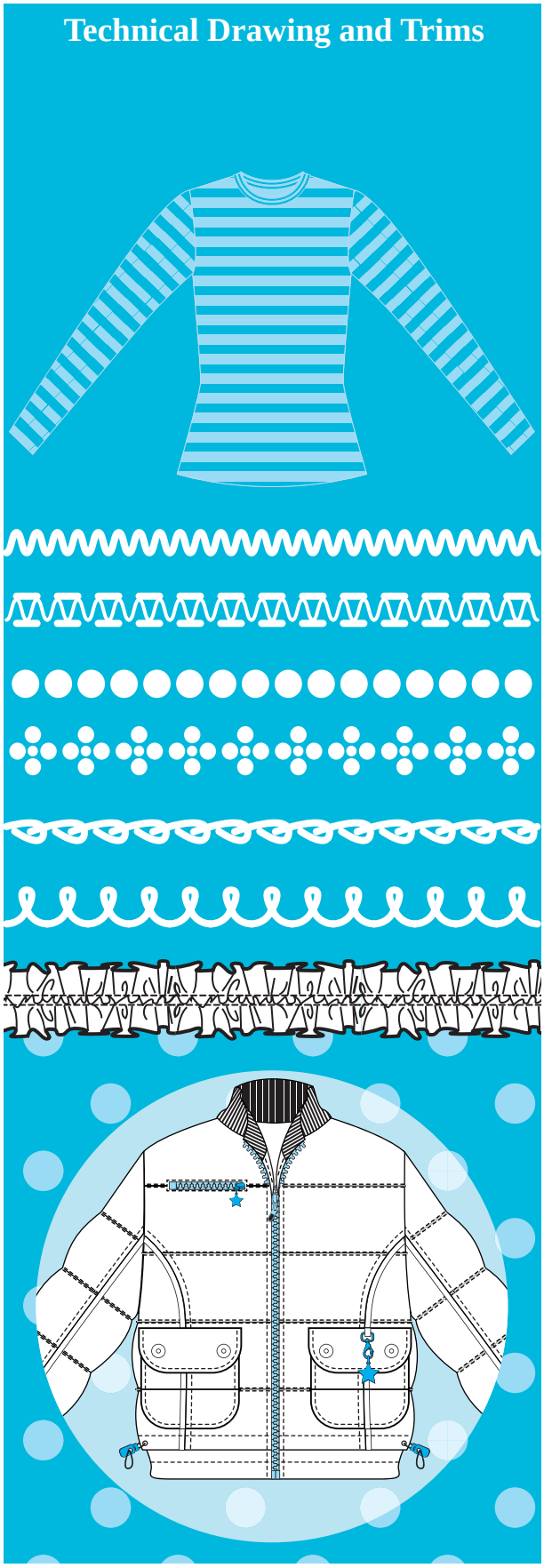
CROQUIS: CHILD



Child Croquis: Scan this image to use as a drawing template for the exercise in Chapter 2 or you can download the image from the wiley website: www.wiley.com/go/centner_adobe

CHAPTER 3

TECHNICAL DRAWING



Chapter 3 combines the information learned in Chapters 1 and 2 to create detailed technical drawings for manufacturing. We also introduce the use of symbol and brush libraries to store different silhouettes, brushes and trims. Simple pattern repeats are introduced and we expand on the use of brush strokes introducing various stitch applications and the technical differences. The finished technical drawing is exported into JPEG format for importing into any spread sheet program.

- Creating silhouettes – female youth croquis 68
- Creating a library of basic garment shapes 69
- Creating a basic tee and neckband 70
- Swatches panel and stripe pattern swatch 71
- Scaling and rotating the stripe pattern fill 72
- Brushes panel and stripe brush ..... 73 – 74
- Offset spot pattern repeat ..... 75 – 76
- Troubleshoot pattern fills 77
- Technical drawing:
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  - Top stitch detail ..... 79 – 82
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  - Create the back 84
  - Add measuring points 85
  - Export a JPEG file to a spreadsheet 86
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  - Rib, spot and gather brushes 90
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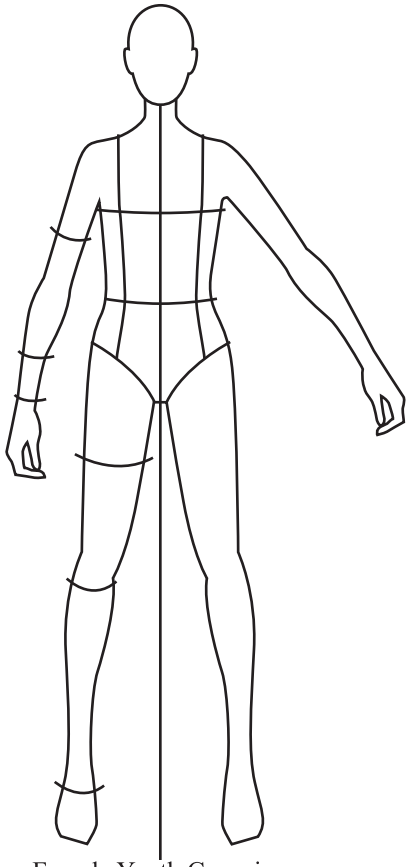
- Consistency 105
- Summary 106

Note: some parts of headings and sub-headings may be summarised.

CREATING SILHOUETTES – FEMALE YOUTH CROQUIS



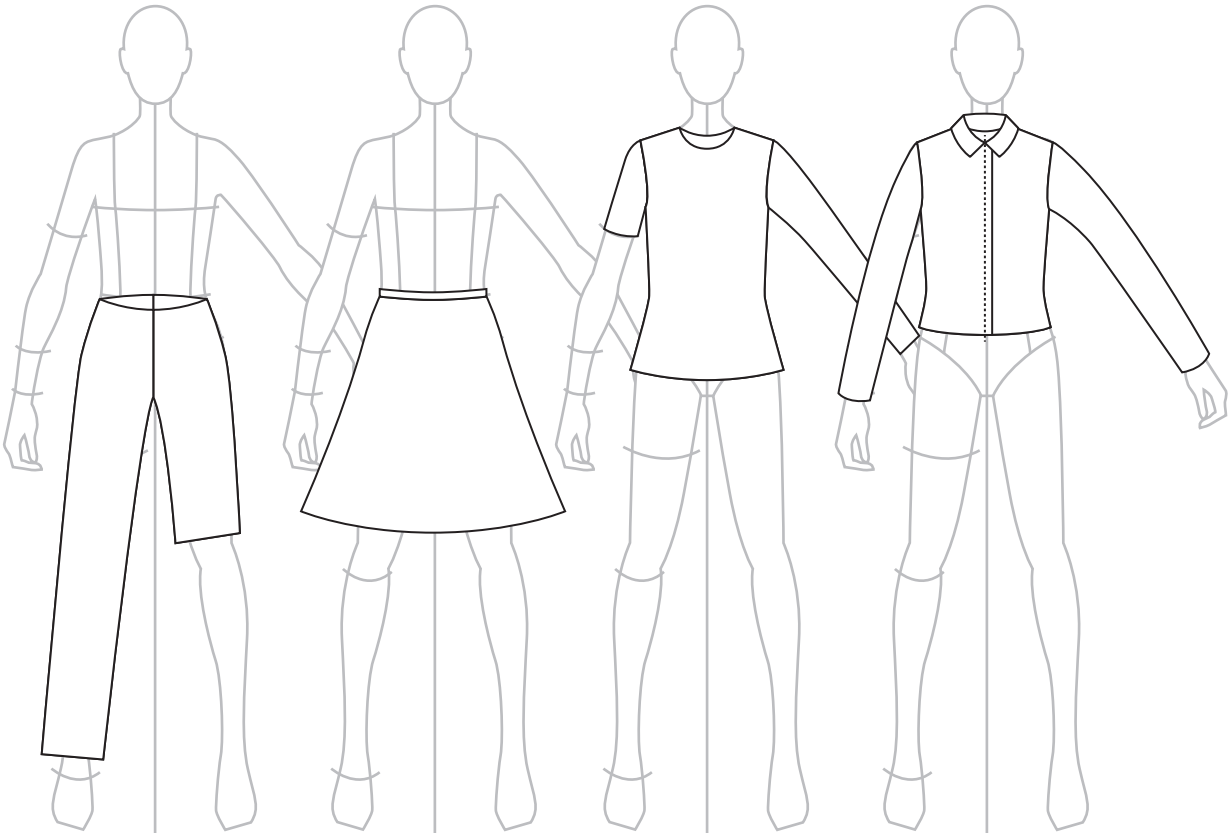
Female Youth Croquis

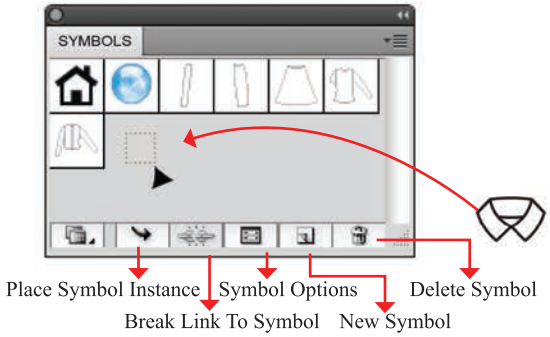
In this chapter we will build up a library of silhouettes, brush strokes and basic pattern fills that will allow ease and efficiency when creating technical drawings.

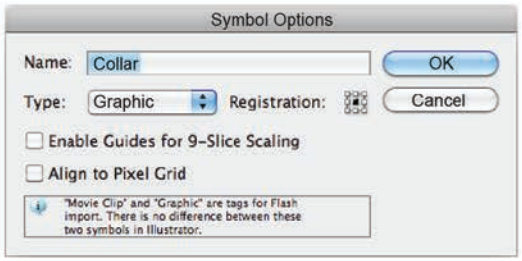
Create Basic Silhouettes:

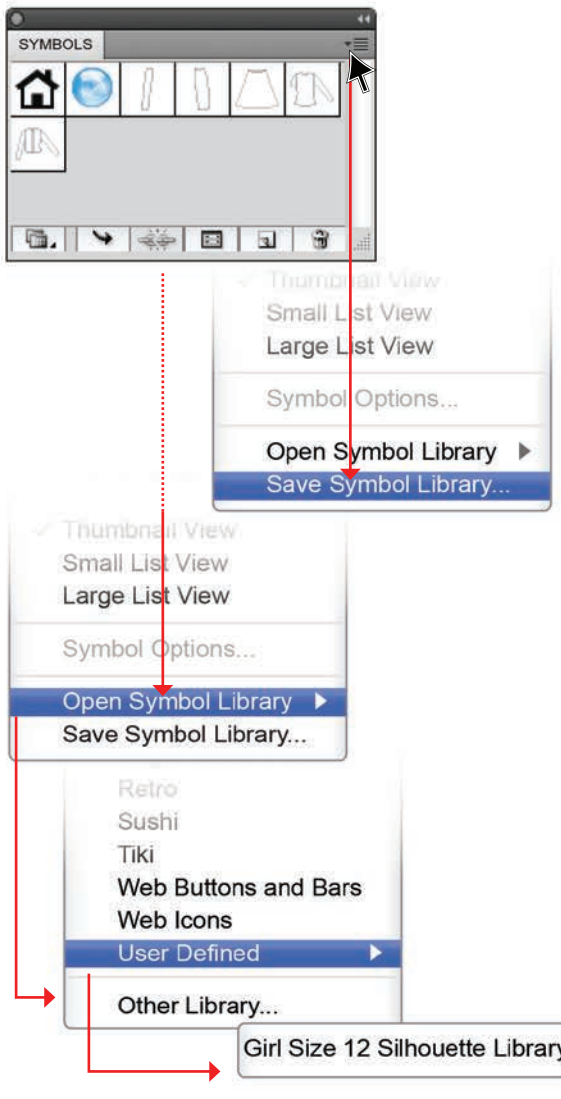
- Go to the last page in this chapter and scan in the Female Youth Croquis
- Open and save a new file: **Girl Size 12 Silhouette Library** (ref page 36 for new file set-up and saving)
- Remember to use your own customised workspace (ref page 5). You can always click onto this again to refresh your workspace
- Create a series of basic silhouettes using the croquis as a guide
- Remember to create closed shapes
- Once the silhouettes have been drawn place them into the **Symbols** panel (ref page 69)

***Symbols**: A symbol is an art object that can be re-used in a document. Each symbol instance is linked to the symbol in the **Symbols** panel or a **Symbol** library. Using symbols can save time and greatly reduce file size. In this chapter we are using the symbols to create a library of basic shapes.*






Symbol Options
Name: Collar
OK
Type: Graphic
Registration:
Cancel
Enable Guides for 9-Slice Scaling
Align to Pixel Grid
"Movie Clip" and "Graphic" are tags for Flash import. There is no difference between these two symbols in Illustrator.



Creating and Saving a Basic Silhouette Library:

- Open the **Symbols** panel by clicking onto the icon in the docking panel ( )
- Select the garment you wish to place into the **Symbols** panel and drag it into the panel or click onto the **New Symbol** ( ) icon
- Double-click on the symbol you have just created and an option to name the symbol will pop up
- Repeat this until you have all the shapes you have created loaded into the **Symbol** panel
- Save this library as an *Adobe Illustrator (.ai)* file in the same directory that you saved your exercises. Create a new folder for these exercises, **Chapter 3 Exercises**, name the file: **Girl Size 12 Silhouette Library** and **Save**
- Save this **Symbol Library** by clicking onto the option arrow on the righthand side of the panel. A drop-down menu will appear with an option to save the library
- Click onto **Save Symbol Library**
- This will open up a **Symbols** directory, **Save**

You will need to update the saved symbol library when adding new styles (ref page 104).

Open a Saved Symbol Library:

- Click onto the down arrow in the **Symbol** panel Click onto **Open Symbol Library** ⟶ **User Defined** and you will see your saved **Symbol** library ⟶ **Girl Size 12 Silhouette Library**

Symbol Panel Options:

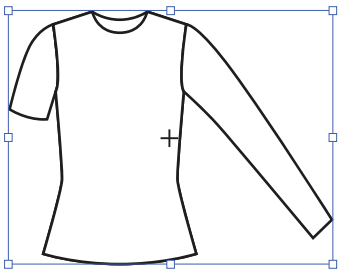
Place Symbol Instance: select the symbol from the panel then click onto this icon to place the symbol, or simply drag the symbol from the panel onto the work area

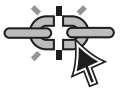
Break Link To Symbol: to edit a symbol in Illustrator it is necessary to break the link to the symbol. Select the symbol instance and click onto this icon to turn the symbol into a vector graphic

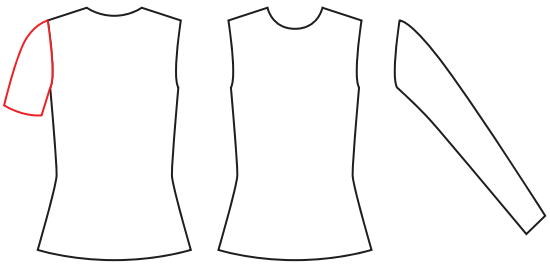
Symbol Options: clicking onto this icon will bring up an option box where you can change the name and attributes of the symbol

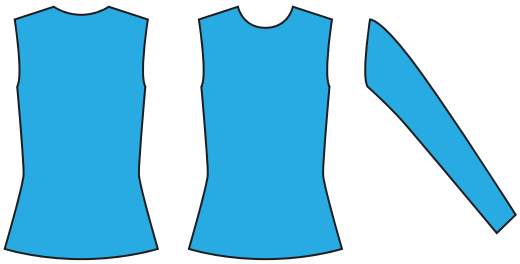
New Symbol: select the graphic you would like to place in the symbol library and click onto this icon

Delete Symbol: select the symbol to be deleted and click onto this icon

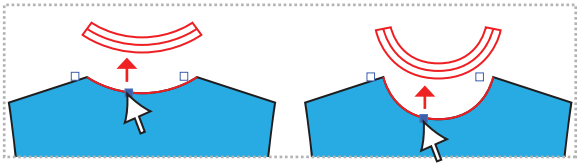








❶



❷

❷ Align the neckbands on top of each other and click onto the **Direct Selection Tool (A)** to line up the front and back neckband at the shoulder/ neck junction. Select each neckband and place a fill and black stroke in the neckband only ( )

❸

Create a Basic Tee-shirt with a Pattern Fill and Neckband Using a Basic Silhouette:

Selection Tool (V)

- Open a new file **(Ctrl N/Cmd N)** and save the file **(Ctrl S/Cmd S)**
- Click onto the **Symbol** panel ( ) and open the **Girl Size 12 Silhouette Library** by clicking onto **Open Symbol Library** menu option (ref page 69)
- Choose the tee-shirt silhouette from that library
- To edit the tee-shirt it is necessary to select the symbol and to click onto the **Break Link to Symbol** icon ( ), this will convert the silhouette into a vector image once again

Create the Rib Neckband:

Selection Tool (V)
Direct Selection Tool (A)

- Ungroup **(Shift Ctrl F/Shift Cmd G)** the tee-shirt and move all the components clear of each other using a keyboard increment of **2mm** (ref page 14). Delete the short sleeve
- Change the fill colour in all the components. Bring the fill to the front to do this **X** ( )

To create the neckband:

❶ Click onto the **Direct Selection Tool (A)** and select the centre back and front **anchor points** (note that the anchor points at the shoulder/neck junction are inactive)

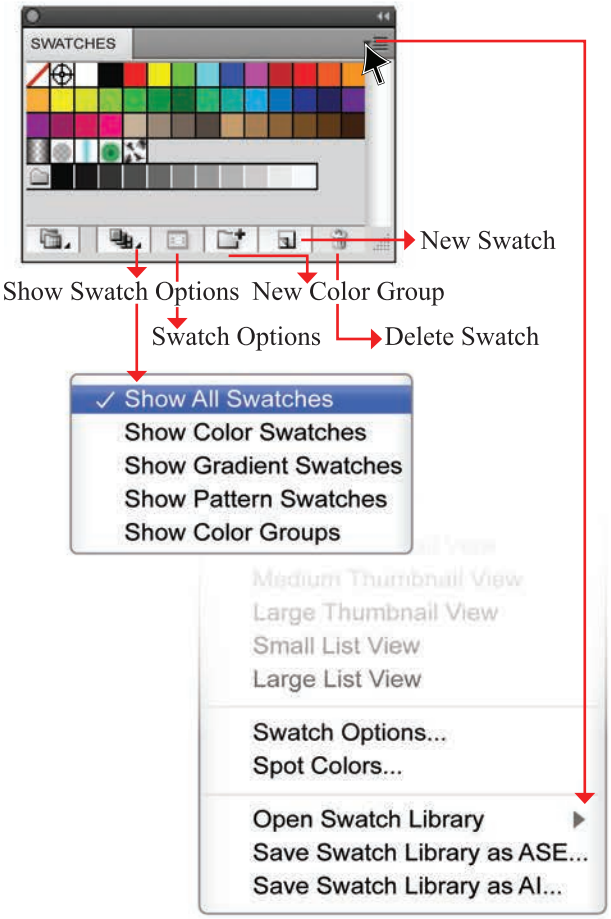
- Copy these lines to the front now **Ctrl C/Cmd C** - to copy **Ctrl F/Cmd F** copies the lines to the front
- Select the lines with the **Selection Tool (V)** and move them off the body using the keyboard arrows
- Remove the fill ( ). Keep the lines selected
- Go to **Object** in the menu bar

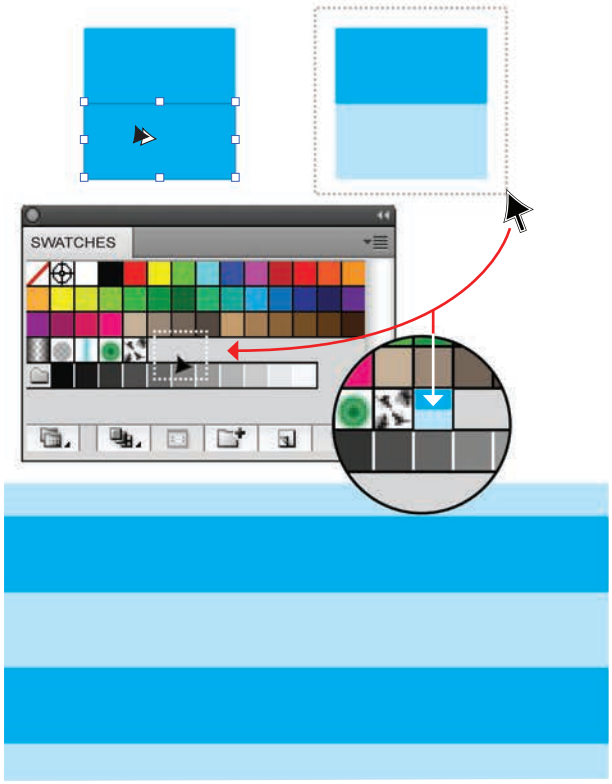
  ↓

  Path → **Offset Path ...** an option box will appear, type in the **Offset** amount: **0.5mm**
- Check the **Preview** option to see if the offset amount is enough before you accept and select **OK**
- **Group** each stroke and neckband

❸ Move all the components of the tee-shirt back together. Remember to **Snap To Point** when you do this (ref to page 6, 55). Go into Outline view if you need to ***(Ctrl Y/Cmd Y)***

SWATCHES PANEL AND STRIPE PATTERN SWATCH





The Swatches Panel:

Show Swatch Options: select which swatch views to show

Swatch Options: clicking onto this icon will bring up an option box where you can change the name and attributes of the swatch

New Color Group: select an object with multiple colours, click onto this icon to save all colours in that object as a group. We find this particularly useful when checking what colours are in a style

New Swatch: select the colour you would like to place in the swatches panel and click onto this icon to place it in the **Swatches** panel. Do not drag the new swatch into this Panel as it will not recognise the new swatch as a swatch, but rather as a 'Pattern Swatch' and a pattern swatch cannot be used as a fill when creating an actual pattern repeat

Delete Swatch: select the swatch to be deleted and click onto this icon

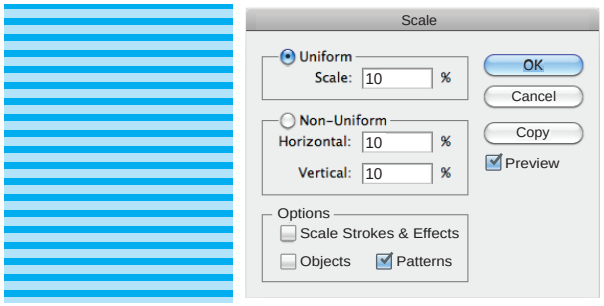
- **Swatch** libraries can be opened and saved in the same way as **Symbol** libraries

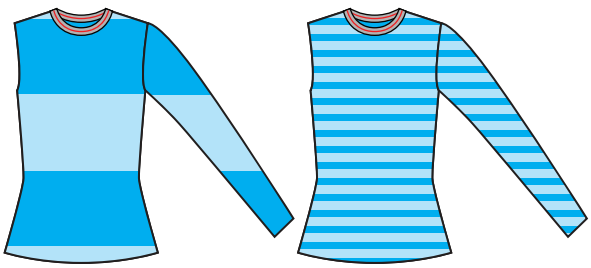
Create a Simple Two-colour Stripe Repeat:

Rectangle Tool (M)
Selection Tool (V)

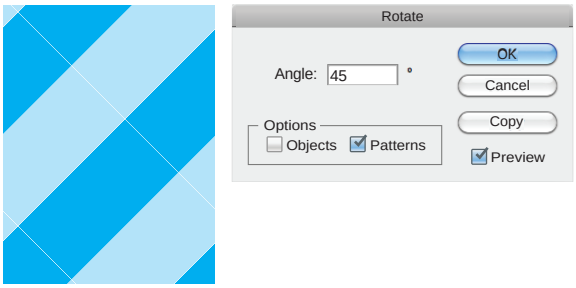
- Select the **Rectangle Tool (M)**
- Make sure there is only a **Fill** in the swatch box, not a **Stroke (**)
- Click onto the work area to activate the **Rectangle** dialogue box
- Type the size of the rectangle, we have created a **20mm** wide by **10mm** high
- De-activate the **Rectangle Tool** by clicking onto the **Selection Tool (V)** and click onto the work area
- Set the **Keyboard Increment (Ctrl K/Cmd K)** to **10mm**
- Copy the stripe using the up/down direction keys and the **Alt** key to copy the rectangle
- Change the colour of the copied rectangle to create a stripe ()
- Marquee over the pattern and drag it into the **Swatches** panel
- Check the repeat by drawing a rectangle with the **Rectangle Tool (M)** and filling it with the stripe ()

SCALING AND ROTATING THE STRIPE PATTERN FILL

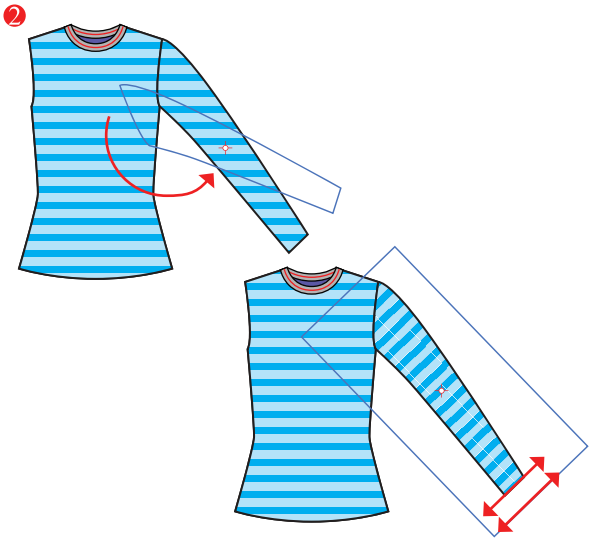




❶



❷



When aligning a stripe pattern fill with the hemline, it is preferable to be able to do this with a less constraining method.

Scaling and Rotating the Stripe Pattern Fill:

Group Selection Tool (No keyboard shortcut)
Rotate Tool (R)

Scaling the pattern fill:

- Select the rectangle with the pattern fill in it
- Right click the mouse to reveal the pop-up menu
- Select **Transform**⟶**Scale t**o activate the scale dialogue box
- Tick **Patterns** only under **Options**, to scale the pattern and not the whole object
- Select **Uniform** and **10** in the **Scale** box
- Tick the **Preview** box to preview the scale of the pattern before accepting the operation
- Select the body and sleeve of the tee-shirt with the **Group Selection Tool** and change the fill to the stripe fill ( ). Do not deselect
- Right click the mouse to reveal the pop-up menu and follow the same procedure as above

There are two alternatives to **Rotate** the pattern fill:

❶ Using the **Rotate** dialogue box:

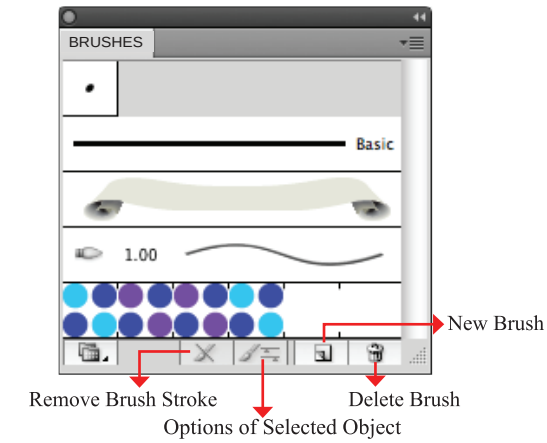
- Select the rectangle with the pattern fill in it
- Right click the mouse to reveal the pop-up menu
- Select **Transform**⟶**Rotate** to activate the rotate dialogue box
- Tick **Patterns** only under **Options**, to scale the pattern and not the whole object
- Type **45°** into the **Angle** box;
- Select **OK**

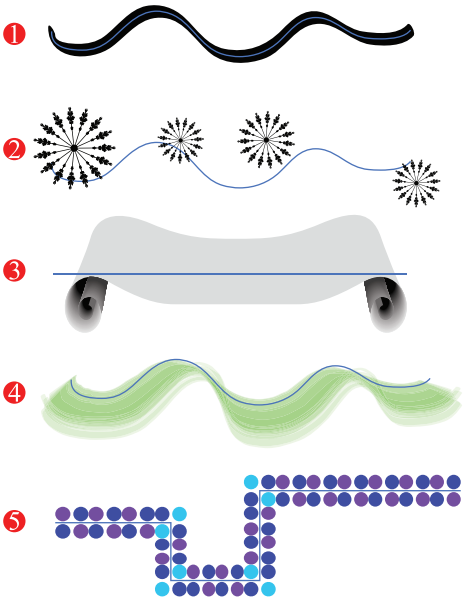
This will rotate the stripe pattern only.

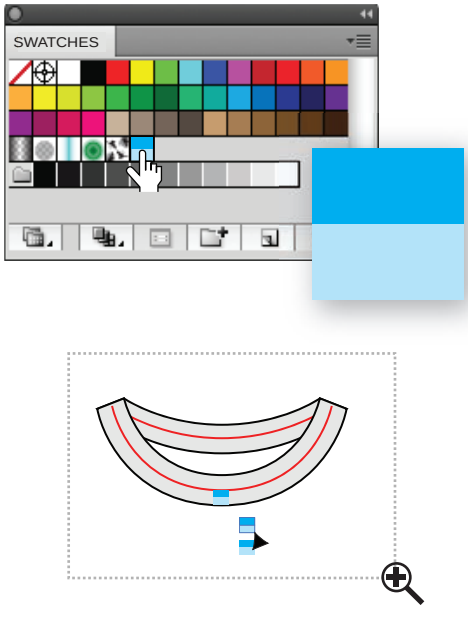
❷ Using the **Tilda (~)** key:

*The **Tilda** (~) key is located in the second row of keys on the far left above the **Tab** key.*

- Select the sleeve with the **Group Selection Tool**
- Click onto the **Rotate Tool (R)** and start to rotate
- Before you hold down the **Tilda (~)** key you will notice that the sleeve shape will start to rotate. Once you hold the **Tilda (~)** key down and rotate the sleeve a rectangle appears - this is the pattern only
- Rotate this shape until the rectangle runs parallel or as close to the sleeve panel line as possible
- Reflect and copy the sleeve now







The Brushes Panel:

Remove Brush Stroke: remove a **Brush stroke** from a selected line in your artwork

Options Of Selected Object: clicking onto this icon will bring up an option box where you can change the attributes of the selected **Brush stroke**

New Brush: select the object you would like to create a Brush out of and click onto this icon a dialogue box with the following five brush options will appear:

1. **Calligraphic Brushes**: a Calligraphic Brush simulates the use of a calligraphic pen tip. This brush would be used when a more natural-looking line is required when doing illustrations or drawings
2. **Scatter Brushes**: a Scatter Brush scatters an object repeatedly along a path
3. **Art Brushes**: an Art Brush stretches the design on a path between anchor points
4. **Bristle Brush:** a Bristle Brush allows you to create brush strokes with the appearance of a natural brush with bristles
5. **Pattern Brushes**: a Pattern Brush repeats a pattern along a path from start to finish

Delete Brush: select the brush from the library to be deleted and click onto this icon

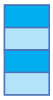
- **Brush** libraries can be opened and saved in the same way as **Symbol** and **Swatch** libraries

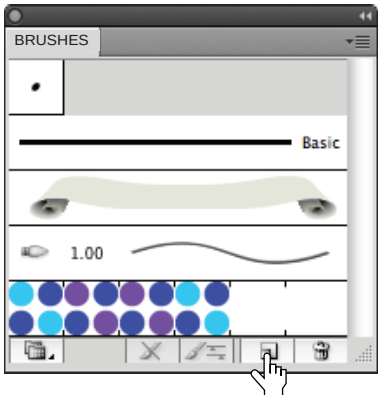
Create a Striped Brush for the Neckband:

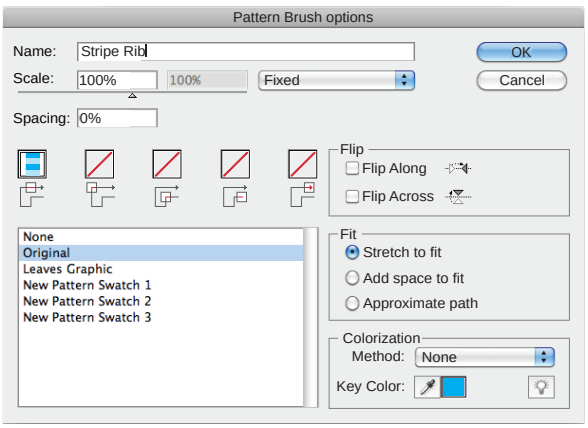
Selection Tool (V)
Zoom Tool (V)

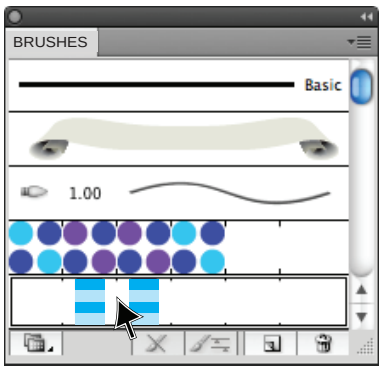
- Drag the pattern fill you created for the tee-shirt from the **Swatches** Panel
- Scale it down to 10%
- Zoom in to the neckband and measure the stripe against the neckband width
- Copy the swatch once and this should fit the width of the neckband

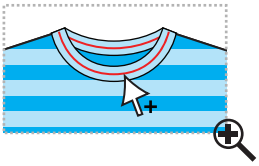
It is easier to make the brush size as close as possible to the finished size on the artwork - this is why we measure the stripe against the neckband.

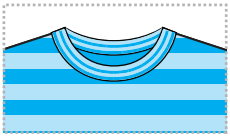










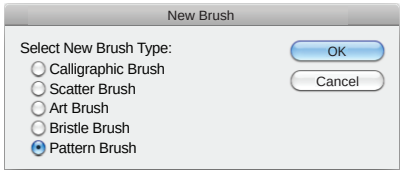


Create a Striped Brush for the Neckband (cont'd):

Selection Tool (V)
Group Selection Tool (No keyboard shortcut)

- Marquee over the stripes and group them **Ctrl G**/ **Cmd G** and keep them selected
- Click onto the new brush icon ()

- A dialogue box will appear



Select **Pattern Brush ()**, **OK**

- The Pattern Brush Options will open
- Name the brush ***'Stripe Rib'***
- Leave all other options unchanged as the default options:
  Scale: **100%**
  Spacing: **0%**
  Fit: **Stretch to fit**
  Colorization: **None**
- **OK**

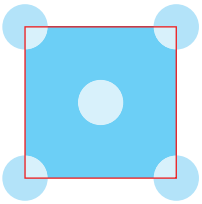
- The option box will close and the brush will be in the **Brushes** Panel

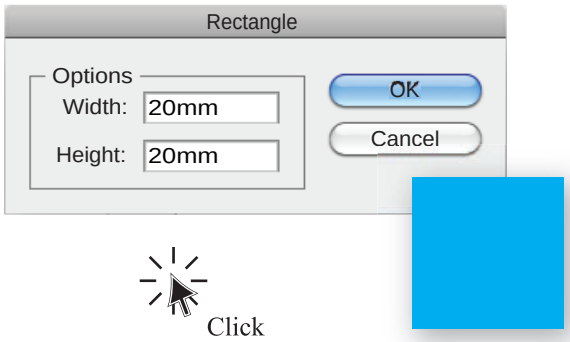
- Select the original neckline stroke in the neckband with the **Group Selection Tool**
- Click onto the ***'Stripe Rib'*** in the **Brushes** Panel

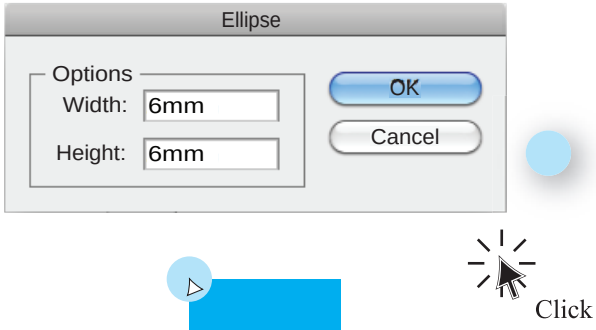
- It should fill the neckband as illustrated
- You can adjust the size of the brush by changing the stroke weight. This should not be necessary for this style as you used the neckband to measure the proportions of the rib brush

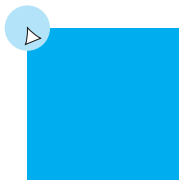
Following on from the stripe fill we will demonstrate an offset spot pattern repeat.

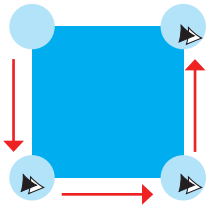
OFFSET SPOT PATTERN REPEAT

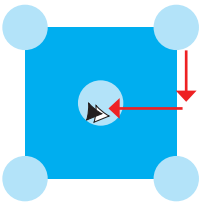












Create an Offset Spot Pattern Repeat:

Rectangle Tool (M)
Ellipse Tool (L)
Selection Tool (V)

The offset spot repeat is differs significantly from the stripe repeat as parts of the design fall outside the actual repeat square. When creating a pattern repeat like this it is very important to work out a specific repeat size before you start.

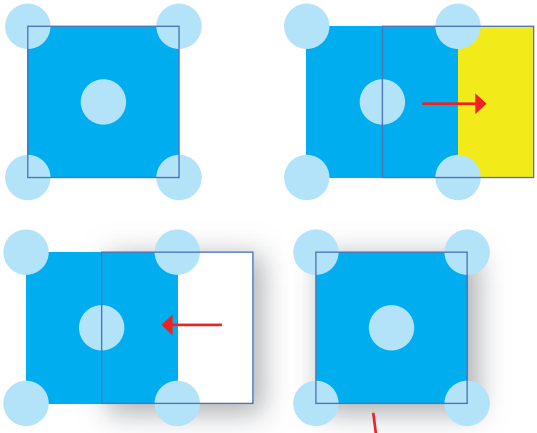
- Select the **Rectangle Tool (M)**
- Make sure there is only a **Fill** in the swatch box, not a **Stroke (**)
- Click onto the work area to activate the **Rectangle** dialogue box
- Type the size of the rectangle, we have created a **20mm** wide and **20mm** high square
- De-activate the **Rectangle Tool** by clicking onto the **Selection Tool (V)** and click onto the work area

- Select another **Fill** colour for the spot **(**)
- Select the **Ellipse Tool (L)**
- Click onto the work area to activate the **Ellipse** option box
- Type the size of the ellipse into the option box, we have created a **6mm** wide and **6mm** high circle
- De-activate the **Ellipse Tool** by clicking onto the **Selection Tool (V)**
- Place the circle exactly on the corner of the square, the cursor will change to white when the centre of the circle is directly on top of the corner **anchor point**
- Set the **Keyboard Increment Ctrl K/Cmd K** to **20mm** this will match the size of the square
- Select the spot, hold down the **Alt** key, a double arrow will appear (), and tap the down () direction key once to copy the spot to the next corner. Repeat the process to the right () and up again ()
- This will copy the spot to each corner of the square
- Re-set the **Keyboard Increment Ctrl K/Cmd K** to **10mm**, half the size of the square
- Select the top left spot and holding down the **Alt** key, tap the down direction key once ()
- Release the **Alt** key and tap the right direction key once ()
- This will copy the spot to the centre of the square

OFFSET SPOT REPEAT AND CHANGE SAME ...

Create an Offset Spot Pattern Repeat (cont'd):

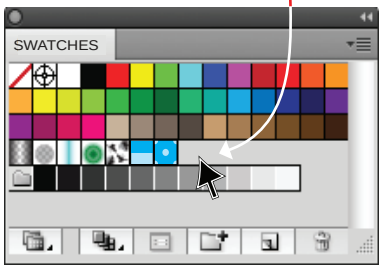
Selection Tool (V)
Rectangle Tool (M)



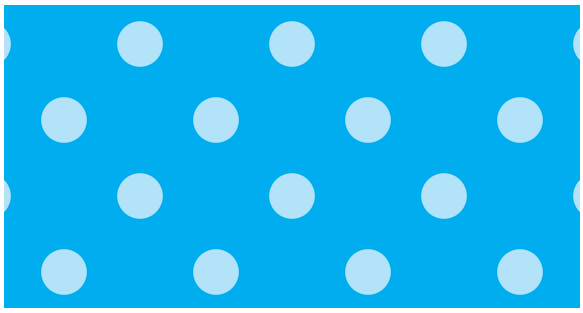
- Select the background square and copy it to the back of the shape:
  Ctrl C/Cmd C and **Ctrl B/Cmd B**

We refer to this as the repeat boundary box as it contains the full repeat inside it.

- As the square is not visible, it would be useful to move the square out from behind the filled square, tapping the right direction key once
- Change the fill colour to make sure that the copied square is behind the spot background square
- Once this is checked remove the fill and move the square back by tapping the left direction key once



- The repeat pattern swatch is now ready to go into the **Swatches** Panel
- Marquee over the whole design with the **Selection Tool (V)** and drag the selection into the **Swatches** Panel



- Check the repeat by drawing a rectangle with the **Rectangle Tool (M)**

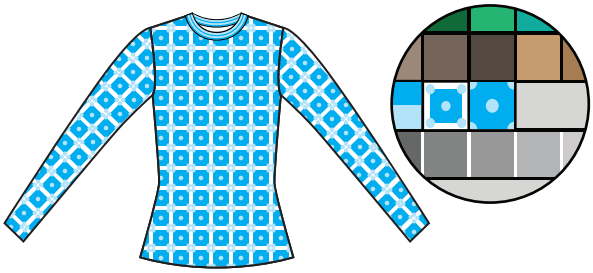
Fill the Tee-shirt with the Spot Pattern Repeat:

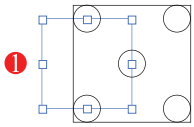
Selection Tool (V)
Group Selection Tool (No keyboard shortcut)

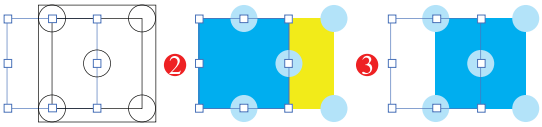
- Make a copy of the tee-shirt and lock that copy. Go to **Object** in the **Menu bar**

  Lock → **Selection (Ctrl 2/Cmd 2)**
- Select a panel of the original tee-shirt with the **Group Selection Tool**
- Go to **Select** in the **Menu bar**

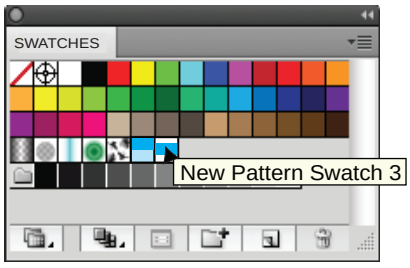
  Same → **Fill Colour** (ref page 61)
- Once the stripe is selected go to the swatches panel and click onto the spot repeat swatch. Everything that was stripe is now spot ( ) and the scale and rotation of the spot will be the same as the original stripe

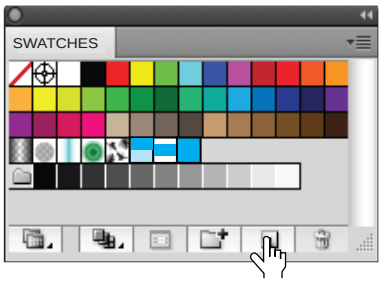


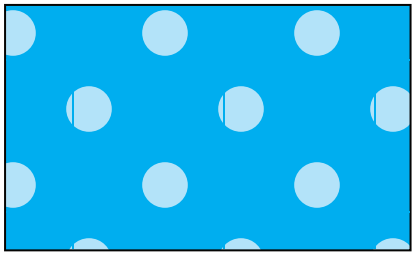




You will notice in the **Outline** *view that there is another box containing the edge of the spots; Illustrator does this automatically if it does not detect a repeat boundary box - it effectively does an automatic transparent boundary box. Delete this before you continue.*







Troubleshoot Pattern Fills:

Q: Why is there a white box around my design when I use it to fill an object?

A: Take note of the first spot swatch showing the full circle in each corner and a white space around the square, as opposed to the second swatch showing only 1/4 of each corner spot
The first swatch could have one of three problems:

❶ There is no repeat boundary box at the back of the design to contain the repeat
Check this by going into **Outline** view **Ctrl Y/Cmd Y** (ref page 52); select the edge of the square with the **Group Selection Tool** and move it aside, this will reveal if there is another square behind it or not

❷ When you move the square aside in the outline view you will be able to see if there is another square there. Go back to **Preview** **Ctrl Y/Cmd Y** and check if you did not leave a colour in the back square

❸ Or perhaps you may have made the top square transparent and not the back square

Solution: Make sure the **Boundary** box is at the very back of the whole design and that it is transparent

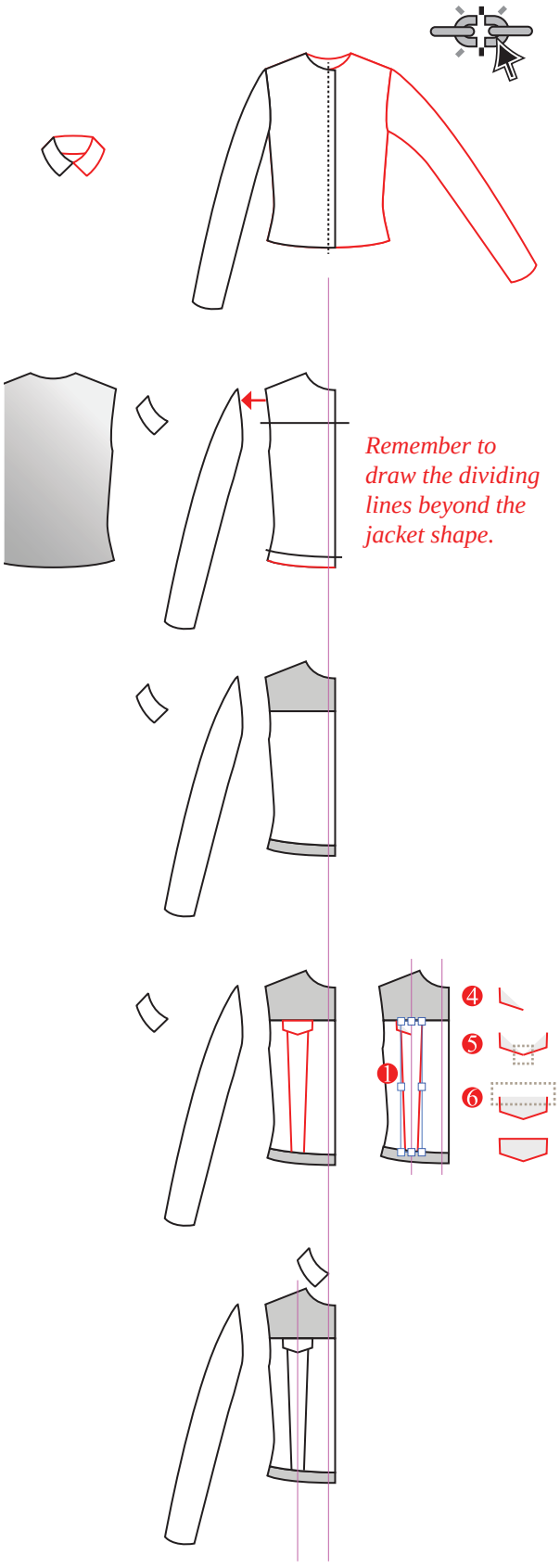
Q: Why won't the repeat design go into the **Swatches** Panel when I drag the design into the Panel?

A: This happens if you have used a pattern fill in the design. You may not think that there is a pattern fill but if you have dragged and dropped a colour swatch that you have created into the **Swatches Panel** it will automatically be read as a pattern fill. You will need to select the swatch first, make sure that the fill colour is on top ( ) and then click onto the New Swatch icon ( ) to place the swatch in the Panel as a *colour* swatch not a *pattern* swatch

Solution: Make sure there are no pattern swatches in the design

You may see faint lines in the pattern repeat when you look at it as a swatch on screen. These lines do not print out if you have your printer set on the right settings.

CREATE A DENIM JACKET USING A BASIC SILHOUETTE



Create a Denim Jacket Using a Basic Silhouette
Step 1: Create the front

Selection Tool (V)
Line Segment Tool (\)
Direct Selection Tool (A)
Pen Tool (P)

- Open a new file and select **1** by **A4** page and **Landscape** layout (ref page 4). Name the file: Jacket Style 1
- To edit the jacket and collar it is necessary to select the symbols and to click onto the **Break Link to Symbol** icon ( ), this will make the symbols into a vector image once again
- Delete the left front, the back collar, the left front collar and the left sleeve
- Set the **Keyboard Increment** to **2mm** (ref page 14)
- Drag a guide to line up with the centre front (ref page 26)
- Move the right sleeve and the back clear of the body with the direction keys
- Draw in the yoke style line with the **Line Segment Tool (\)**, ensure that there is only a stroke colour not a fill colour in the swatches ( )
- Copy the hem edge to the front **(Ctrl C/Cmd C** and **Ctrl F/Cmd F)** and move it up to create the waistband, remove the fill **(/)**
- Marquee over the front jacket and the dividing lines with the **Selection Tool (V)**
- Click onto the **Divide** icon ( ) and divide the front. Three separate shapes have been created

- Draw in panel style detail and a pocket flap in a red stroke:

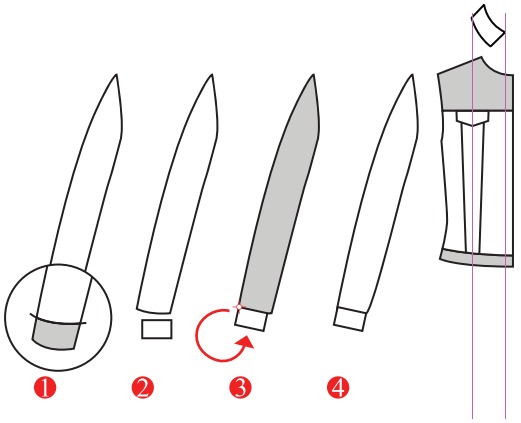
❶ Draw the left panel line and **Reflect** it (ref page 27)
❷ Group the two lines and select them to give you a guide to the centre of the lines. Drag a guide line to the centre of these lines (ref page 38)

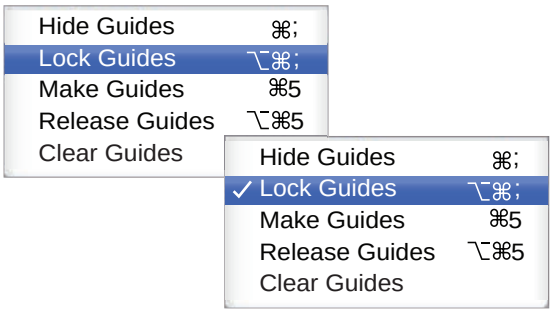
- Use this guide as the centre of the pocket flap:

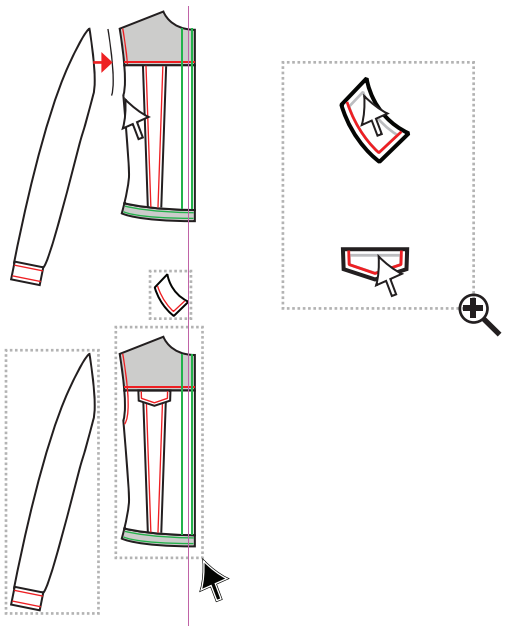
❸ Draw only the bottom edge and up the side edge
❹ Move the flap off the jacket to reflect the lines and join them
❺ Marquee over the two open **anchor points** at the point of the flap and **Average** and **Join** them **(Alt Ctrl J, Cmd J/Alt Cmd J, Cmd J)**
❻ Marquee over the top two open end **anchor points** and **Join** them **(Cmd J/Cmd J)** this will create a straight line between the two **anchor points**

- Move the flap back onto the front and align the collar with the centre front **Guide** line

CREATE THE SLEEVE AND DRAW IN TOP STITCH DETAIL







Step 2: Create the sleeve

Selection Tool (V)
Rectangle Tool (M)
Rotate Tool (R)

1. Shorten the sleeve buy one cuff length. Draw in the divide line, remember to go beyond the edges of the sleeve and to have a stroke only, no fill, ( ) before you divide ( )
2. Draw the cuff with the **Rectangle Tool (M)**
3. Place a corner of the cuff on the corner of the sleeve and rotate the cuff from that corner to line up with the sleeve edge **Rotate Tool (R)** (ref page 17, move the centre pivot point)
4. Adjust the inner sleeve seam to line up with the cuff

- Remove the **Guide** line from the centre of the panel. To do this, go to **View** in the menu bar ↓ **Guides** → ✓**Lock Guides**, click onto **Lock Guides** to remove the tick (✓)
- Select the **Guide**, **Delete** it and **Lock Guides** (✓) again

Step 3: Prepare the Top Stitching Lines

Selection Tool (V)
Direct Selection Tool (A)

*This jacket will have a combination of **1 Needle Top Stitching** and **2 Needle Top Stitching** and you will draw the different stitch types in different colours to make it easier to select them later.*

- Copy the yoke line, panel lines, waistband lines and cuff edge, making the **2 Needle Top Stitch** lines red ( ) and the **1 Needle Top Stitch** lines green ( ). These are solid lines not dashed lines
- To get the armhole top stitch line we copied the *sleeve* armhole as it is not divided as the armhole has been. Move the line on top of the body and adjust the line with the **Direct Selection Tool (A)**
- The collar and pocket flap stitching line was created by using the 'Offset' option and deleting what was not needed (ref page 50)
- Group the sleeve and cuff
- Group the front and group the collar

*The front is complete except for the top stitching; this will require two new **Pattern Brushes.***

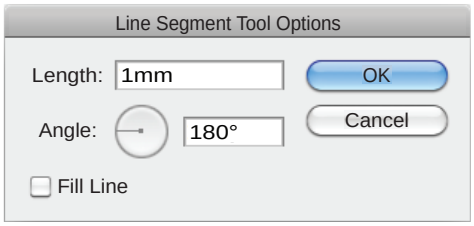
ONE NEEDLE TOP STITCH BRUSH WITH CORNER

Step 4: Create a 1 Needle Brush

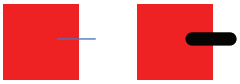
Selection Tool (V)
Rectangle Tool (M)
Line Segment Tool (\)
Direct Selection Tool (A)

1. Draw a square 2mm x 2mm

2. Select the **Line Segment Tool (\)** and click onto the work area to open the **Line Segment Tool** options. Make the line 1mm in length and 180º and leave **Fill Line** unselected



3. Put black into the stroke box and no fill ( ) and select round cap from the **Stroke** panel



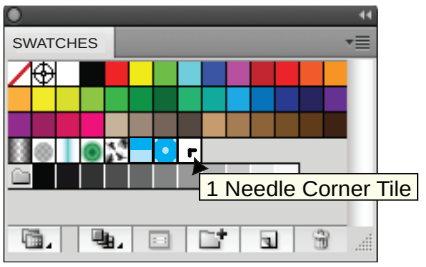
4. Marquee over the line and square and **Vertical Align Centre** ( ) and **Horizontal Align Centre** ( ) the line and the 2mm square this is the main part of the brush called the *'Side Tile'* and copy the square and line once

5. Rotate copy the line only to 90º to form a + symbol (ref page 16)

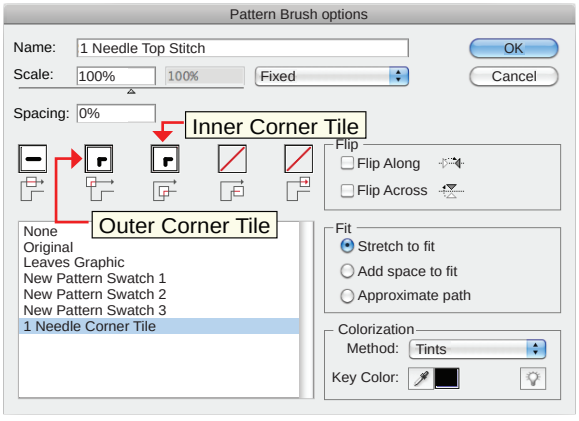
6. Set the **Keyboard Increment Ctrl K/Cmd K** to **0.5mm** and select the top of the vertical line with the **Direct Selection Tool (A)** and tap the down arrow on the keyboard once to shorten the vertical line to be in line with the horizontal line. Line up the horizontal line in the same way, selecting the left **anchor point**. This is the *'Corner Tile'*

7. Remove the fill from both squares ( )

8. Select the corner tile image and drag the corner tile image into the **Swatches** Panel



9. It is best to name the corner tile. Deselect the corner tile image and double-click onto the corner tile swatch to bring up a dialogue box where you can name the swatch, *'1 Needle Corner Tile'*
10. Select the straight line image and open the **Brushes** panel ( )
11. Click onto the **New Brush** icon ( )
12. Select ( ) Pattern Brush and **OK** (ref page 73)
13. A dialogue box will pop up with the brush in the first tile



14. Name the new stitch - **1 Needle Top Stitch**
15. Click onto the next square **Outer Corner Tile**
16. Select *1 Needle Corner Tile* from the swatches listed in the box
17. Click onto the next square **Inner Corner Tile** and select the same corner swatch
18. Leave the **Scale** at **100%** and the **Spacing** at **0%**. Scale and spacing are both covered by the fact that you have drawn a boundary box of 2mm square
19. Click onto **Stretch to fit**
20. Click onto the arrow to bring up the **'Colorization' Method** options
21. Select **Tints** and click onto **OK**

Tints: *this will change the brush stroke colour whenever the stroke colour is changed. This method works best with a one-colour brush stroke.*

Step 5: Create a 2 Needle Brush

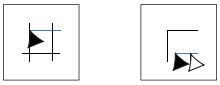
Selection Tool (V)
Rectangle Tool (R)
Line Segment Tool (\)
Direct Selection Tool (A)

1. Follow steps 1-4 for the 1 Needle Top Stitch brush

2. Set the **Keyboard Increment Ctrl K/Cmd K** to **0.3mm** and nudge the line up once with the direction keys. Select the line, hold down the **Alt** key to copy it once, release the **Alt** key and move it down twice with the **Keyboard Direction Arrows** (i.e. 0.6mm). Select both lines and **Group** them. Hold down **Shift** to pick up more than one object at a time. This is the *'Side Tile'*

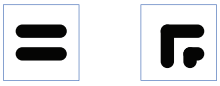
3. Copy the square and two horizontal lines once. Select the double lines and rotate and copy them 90°

4. To create the corner swatch it is best to go into **Outline Ctrl Y/Cmd Y** view and move the **anchor points** manually. Select the top lefthand horizontal line **anchor point** with the **Direct Selection Tool (A)**, hold down the **Shift** key and move the anchor point to line up with the first vertical line

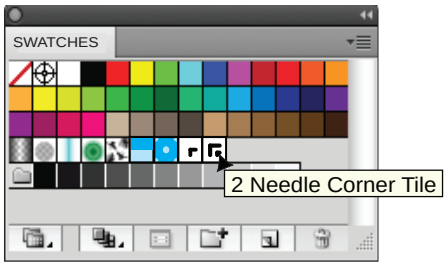


5. Line up the bottom horizontal line with the second vertical line. Line up the vertical lines in the same way, selecting the top **anchor points** and moving them down. This is the *'2 Needle Corner Tile'*. Go back to **Preview** view **Ctrl Y/Cmd Y**

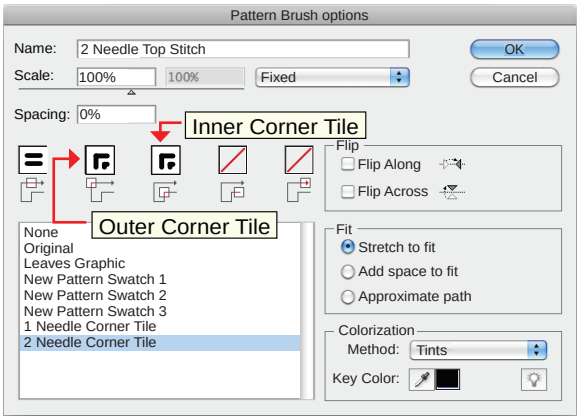
6. Remove the fill from both squares so that they are transparent ( )



7. Select the corner tile image and drag the corner tile image into the **Swatches** Panel



8. It is best to name the corner tile. Deselect the corner tile image and double-click onto the corner tile swatch to bring up a dialogue box where you can name the swatch, *'2 Needle Corner Tile'*
9. Select the straight line image and open the **Brushes** panel ( )
10. Click onto the **New Brush** icon ( )
11. Select ( ) Pattern Brush and **OK** (ref page 73)
12. A dialogue box will pop up with the brush in the first tile

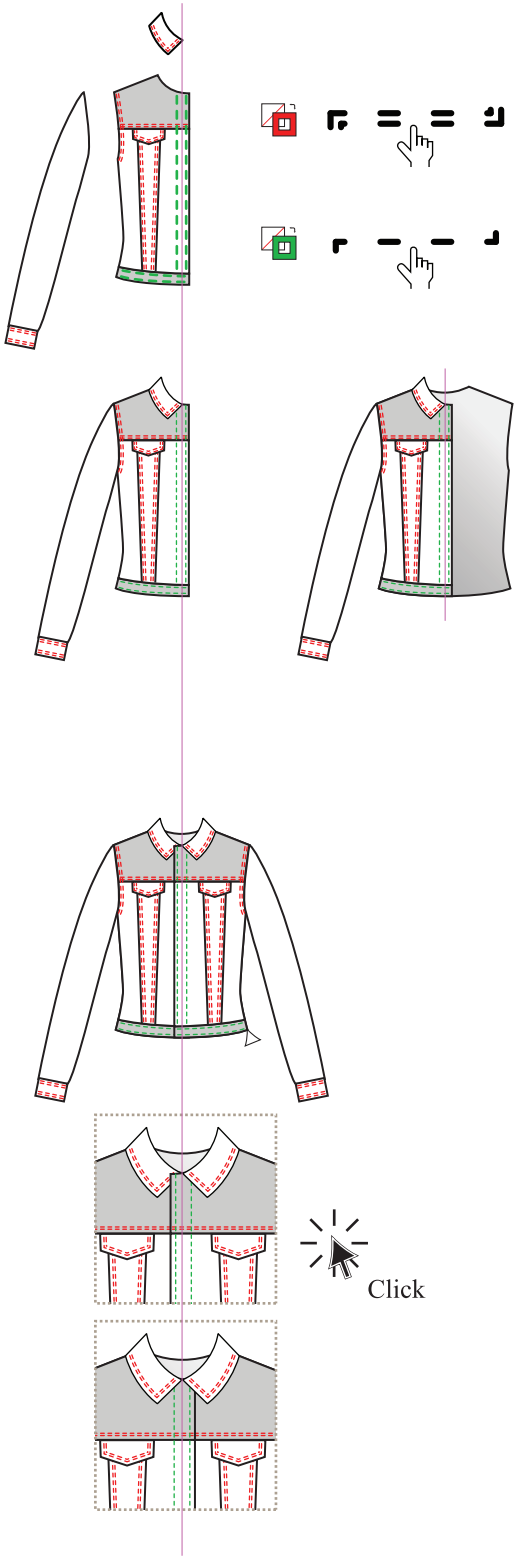


13. Name the new stitch: **2 Needle Top Stitch**
14. Click onto the next square **Outer Corner Tile**
15. Select *2 Needle Corner Tile* from the swatches listed in the box
16. Click onto the next square **Inner Corner Tile** and select the same corner swatch
17. Leave the **Scale** at **100%** and the **Spacing** at **0%**. Scale and spacing are both covered by the fact that you have drawn a boundary box of 2mm square
18. Click onto **Stretch to fit**
19. Click onto the arrow to bring up the '**Colorization**' **Method** options, select **Tints** and click onto **OK**

Q: *Why create a 1 needle brush instead of just using the dashed line option?*

A: *This will ensure that the gaps, dashes and stroke size are all uniform when transformed; it is simpler to just have a uniform 0.75 stroke than to work out the dash and gap options.*

PLACING THE STITCH DETAILS AND REFLECT



Step 6: Add 1 and 2 Needle stitching to the front

Selection Tool (V)
Group Selection Tool (No keyboard shortcut)

- Select a red line ( ) with the **Group Selection Tool**
- Go to **Select** in the menu bar and select **Same** from the drop-down menu
- A sub-menu will appear. Go to **Stroke Color**, this will select anything that is the red stroke colour
- Once the red lines are selected go to the **Brushes** panel and click onto the ***2 Needle Top Stitch*** brush. All the red lines will now have the ***2 Needle Top Stitch*** brush
- The stroke size will default to **1pt.** While the stroke is still selected go to the **Stroke Panel** and change the stroke weight back to **0.75**
- Repeat this process for the green line ( ), this time select the ***1 Needle Top Stitch*** brush
- Move the sleeve back to the armhole and the collar onto the neck and group the whole front
- Half the jacket is complete
- Move the back panel back behind the front before you reflect and copy the front

Step 7: Reflect and copy the front

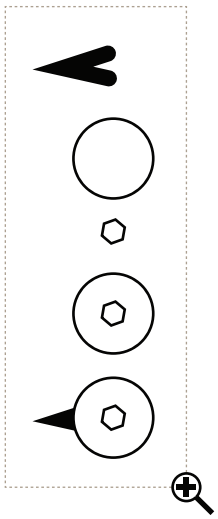
- Select the front and **Reflect** it (ref page 27)
- Rest the **Selection Tool (V)** on the righthand waist corner. When the white box appears next to the arrow click onto that **anchor point** and move the front over to the opposite side
- When the arrow turns white release

The front on the right now needs to be behind the front on the left to show the correct button overlap - right on top of left when the jacket is on the body. The collar, however, needs to stay on top.

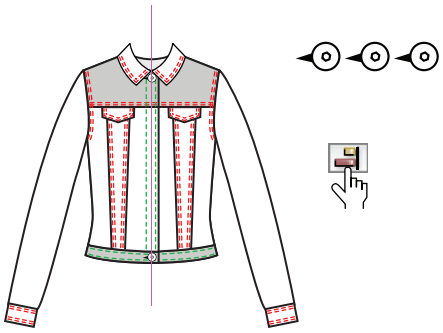
- Select the front on the right with the **Selection Tool (V)** and ungroup it
- Click away and select the body only, not the collar; right click the mouse and select **Arrange Layer Order** (ref page 18) **Send Backwards (Ctrl [/ Cmd [)**
- Group the two fronts, do not include the back
- Save the file **(Ctrl S/Cmd S)**

Step 8: Create and place the stud buttons

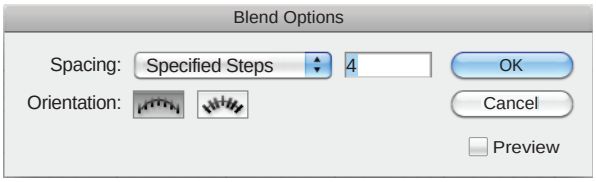
Pen Tool (P)
Ellipse Tool (L)
Polygon Tool (No keyboard shortcut)
Selection Tool (P)
Blend Tool (W)



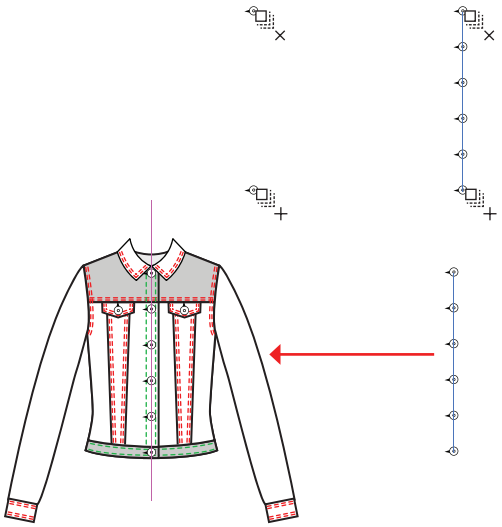
- Remember to match the scale of the button to the jacket front
- Draw the buttonhole
- Draw an ellipse with the **Ellipse Tool (L)**
- Draw a polygon with the **Polygon Tool** (No keyboard shortcut). Place the polygon on top of the ellipse as the illustration and centre it with the **Vertical Align Centre** ( ) and **Horizontal Align Centre** ( ) tools
- Group the button and buttonhole and make three copies of the button and buttonhole



- Place the first button at the centre front neck
- Duplicate it and place the last button at the hem
- Select both buttons and align them to the right **Horizontal Align Right** ( )
- Move them clear of the jacket to blend them



- Click onto the **Blend Tool (W)**
- Click onto the work area to activate the **Blend Tool** option box
- Select **Specified Steps** in spacing and type in **4** in the allocated space, click **OK**

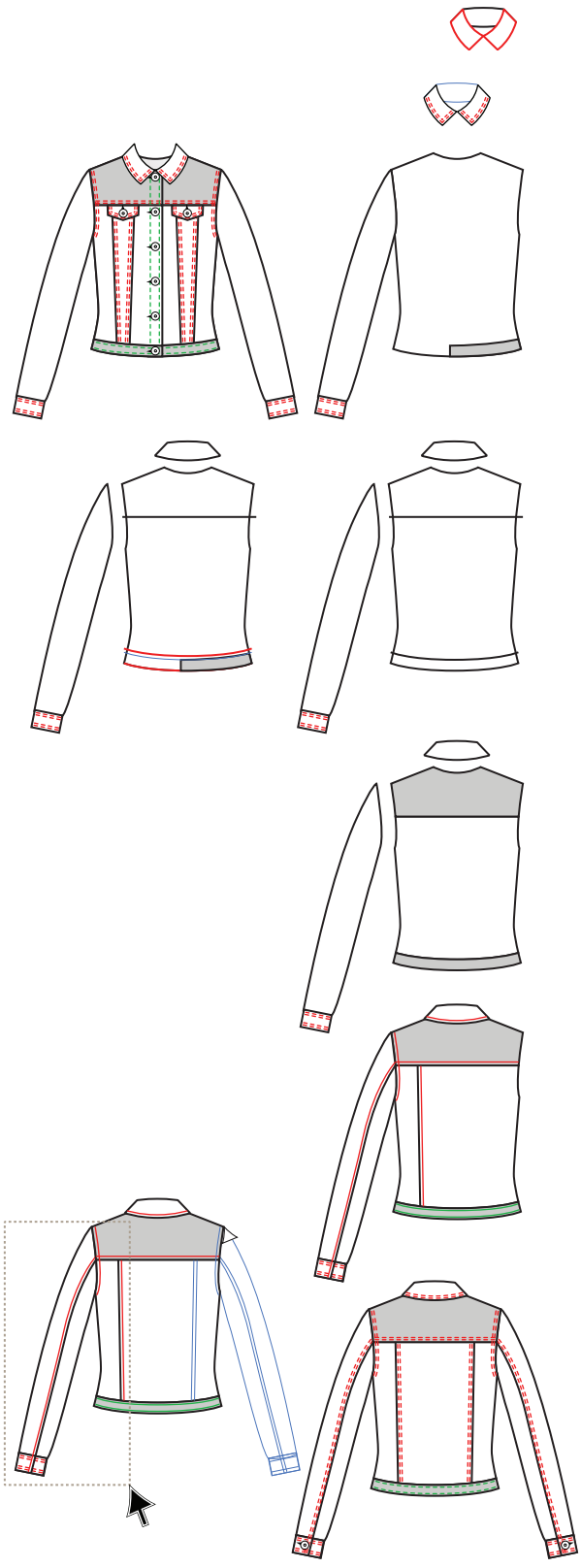


- Rest the **Blend Tool** on the top button and click to select the button ( ) and then rest the **Blend Tool** on the last button ( ) and click to create **four** buttons between the two buttons (ref page 46 for **Blend Tool** details)

- Move the buttons back to the centre front of the jacket

- Rotate and place the second of the buttons on a pocket flap, copy it to the opposite side
- Select the two fronts and the buttons and group them **Ctrl G/Cmd G**

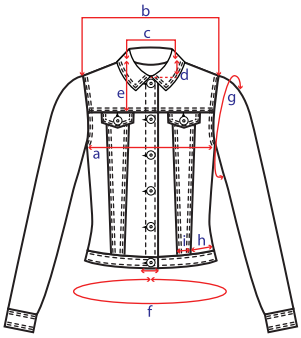
CREATE THE BACK

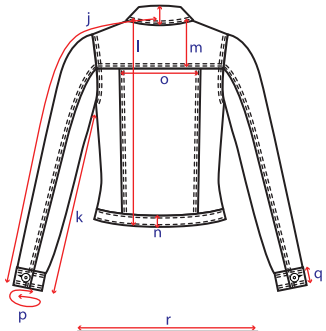


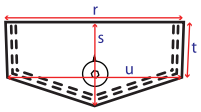
Step 9: Create the back

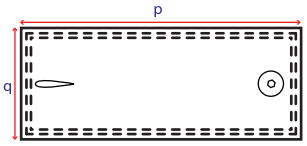
Selection Tool (V)
Line Segment Tool (\)
Direct Selection Tool (A)

- Copy the whole jacket and move it clear of the first jacket
- Ungroup the jacket and move the front collars up with the **Keyboard Direction Arrows**
- Delete all of the fronts except one of the front waistbands to use as a guide for the back waistband
- Select the collar from the **Symbols Library** and drag it onto the work area. Select the collar symbol and click on the **Break Link to Symbol** icon ( ) to be able to edit the collar
- Delete the front collars of the symbol collar and align the back collar with the front collars from the jacket
- Set the **Keyboard Increment** to **2mm** (ref page 14)
- Move the right sleeve clear of the body with the direction keys
- Draw in the yoke style line with the **Line Segment Tool (\)**, ensure that there is only a stroke colour not a fill colour in the swatches ( )
- Select the **Direct Selection Tool (A)** and click onto the centre back **anchor point** at the hem edge, copy it to the front **(Ctrl C/Cmd C** and **Ctrl F/Cmd F)** and move it up to line up with the edge of the front waistband at the side seam to create the back waistband, delete the front waistband
- Marquee over the back jacket and the dividing lines with the **Selection Tool (V)** and divide ( ) the shape
- Three separate shapes have been created
- Draw in panel style details on one side of the back and on the sleeve; draw in the stitch details as you did for the front, red for two needle and green for one needle
- Place the last copy of the button on the cuff, ensuring that the button hole runs parallel to the cuff edge. **Group** the sleeve sleeve details
- Marquee over the sleeve and the back panel line with the **Selection Tool (V)**; deselect the back jacket and yoke stitching by holding down **Shift** and clicking onto the back jacket and stitching
- **Reflect**, **Copy** and move the sleeve and the back design lines across to the opposite side. Use the shoulder/sleeve junction point as your guide to place the sleeve and panel lines on the back
- Follow the instructions for the front to change the red and green lines to the 1 and 2 needle brushes





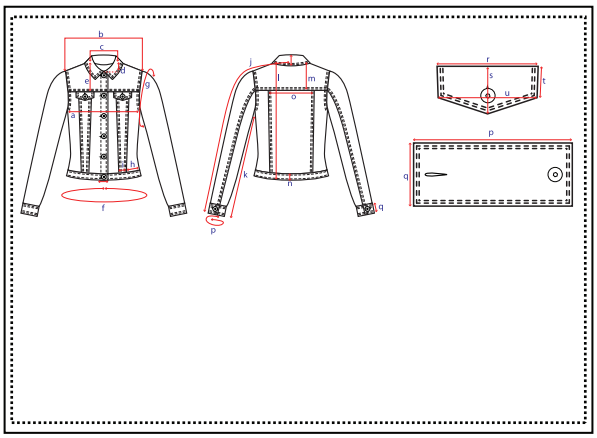




Step 10: Add measuring points

Line Segment Tool (\)
Selection Tool (V)
Direct Selection Tool (A)
Rectangle Tool (M)
Ellipse Tool (L)
Scissor Tool (C)
Rotate Tool (R)

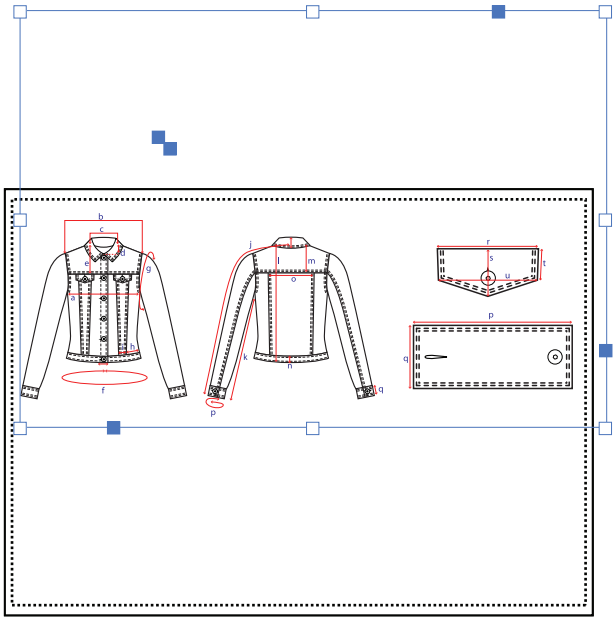
- Change all the fill colour to white and all the stitching colour to black. Place a contrast colour in the stroke box and no fill ( )
- Select the **Rectangle Tool (M)** and draw a rectangle that stretches the width of the neck and another that stretches the width of the shoulders. Click onto the **Direct Selection Tool (A)** select the bottom line of the rectangles and press delete once
- Select the **Line Segment Tool (\)**. Draw all the straight measuring lines
- Create an ellipse with the **Ellipse Tool (L)** that follows the width of the hip basque, as in the illustration. Select the **Scissor Tool (C)** and cut the centre of the ellipse. Cut out any of the ellipse that overlaps the sleeve for the armhole circumference
- Draw the cuff circumference line and rotate it to run parallel to the cuff, cut this to allow for arrows and pull the arrows beyond each other to denote an overlap
- Go to the menu bar and click onto **Select – Same – Stroke Color**. Now add **Arrowheads** (ref page 62)
- Draw in any details you want to highlight: e.g. the pocket and the cuff, add measuring lines to these too



Step 11: Type in all the **Points of Measurement (POM)**

- Arrange the garment on a page so that it will be compatible with the specification sheet you have set up
- In this example, the garment fits across half of the landscape orientation - see the example on page 86
- Type the point of measurement (POM) next to each measuring line
- A quick way to do this is to type up all the letters you will need and go to **Type** in the menu bar and **Create Outlines**, this will turn all the letters into vector graphics, ungroup them **(Shift Ctrl G/Shift Cmd G)**; you can pick up each letter and place it easily next to the line

EXPORT A JPEG FILE TO A SPREADSHEET



A Few Tips About Exporting to JPEG:

- It is important the only thing in the file or the layer that you are exporting is what you want to appear on the specification sheet (ref page 63)
- The following points are how you can check your file:

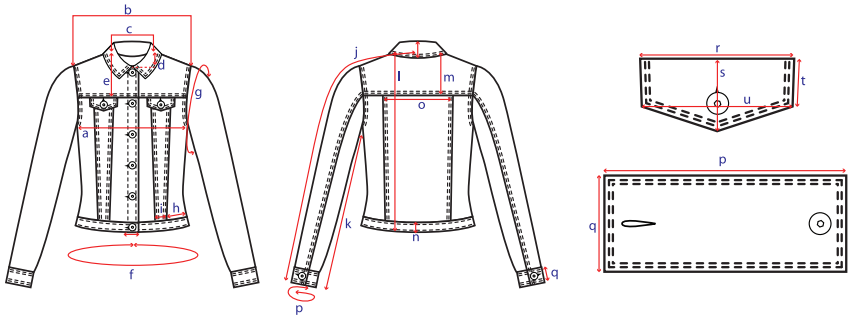
1. Check if there are any invisible objects or *stray points* in the file (ref page 30)

2. **Select All (Ctrl A/Cmd A)**:
   Go to **Select** in the menu bar
   ↓
   All
   Check that the **Bounding Box** is around the image to be exported only. If it is not, **Zoom Out (Ctrl − / Cmd −)** and delete any other objects

3. Note when exporting to a **JPEG** format quality and file size are associated (ref page 64)

Blu - D Design

Description: Denim Jacket	Size Range: 8 years to 14 years	Sample size: 12	Date: 10/04/2011



DESCRIPTION	POM	+/-	8	10	sample size 12	14			
CHEST 1CM BELOW UNDERARM	A								
SHOULDER BREADTH	B								
NECK WIDTH	C								
FRONT NECK DROP	D								
FRONT YOKE LENGTH	E								
HEM CIRCUMFERENCE	F								
ARMHOLE CIRCUMFERENCE	G								
SIDE PANEL WIDTH AT HIP	H								
POCKET PANEL WIDTH AT HEM	I								
SLEEVE LENGTH FROM NAPE OF NECK	J								
UNDERARM LENGTH	K								
TOTAL BACK LENGTH FROM SIDE NECK	L								
CENTRE BACK YOKE LENGTH	M								
WAISTBAND WIDTH	N								
CENTRE BACK PANEL WIDTH	O								
TOTAL CUFF LENGTH (INC OVERLAP)	P								
CUFF WIDTH	Q								
POCKET FLAP WIDTH	R								
POCKET FLAP LENGTH - CENTRE	S								
POCKET FLAP LENGTH - SIDE	T								
TOTAL OVERLAP FOR FRONT BUTTONSTAND									

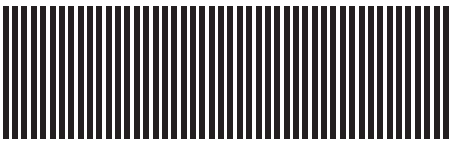
Brushes:

- Following is a selection of useful brush strokes and instructions based on the two brush strokes you have already created
- The brush strokes are placed in an order where they build on each other
- We will elaborate on the difference between the **'Outer' Corner Tile** and the **'Inner' Corner Tile** in the Scallop and Blanket stitch brushes
- Finally we will **Expand** a brush in the Double Frill and combine three brushes and **Expand** the Zig Zag brush in the Rouching combination

- Zig Zag

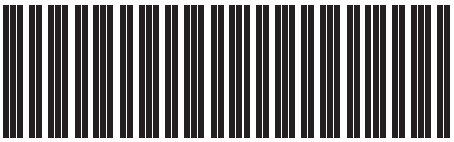
- 2 Needle Cover Stitch

- 1 × 1 Rib



- 2 × 2 Rib

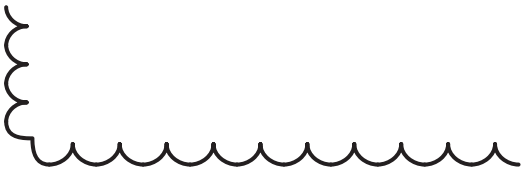
- 3 × 2 Rib



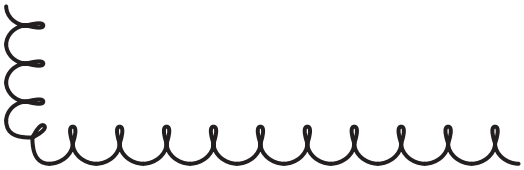
- Spot

- Gathers

- Simple Lace with a corner – 2-way design



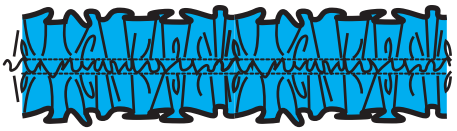
- Scallop with a corner – 1-way design



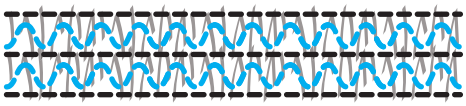
- Blanket Stitch with a corner – 1-way design

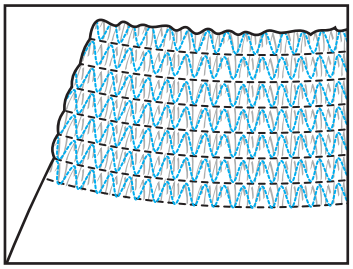
- Chain Stitch

- Double Frill



- Rouching



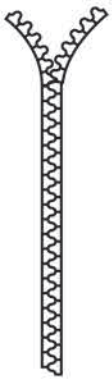


ZIG ZAG

Brush Strokes:

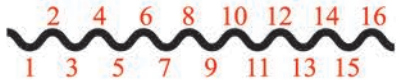
- Simple Zip

Realistic Zip



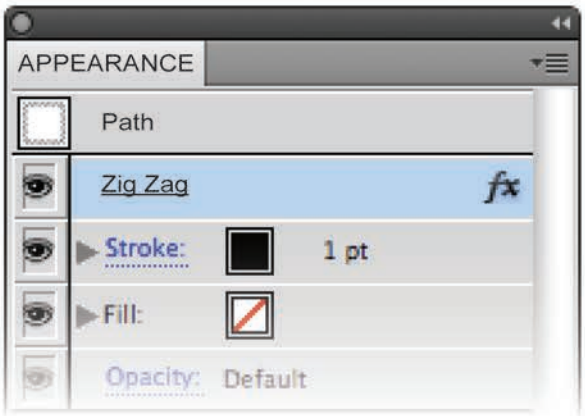
Corner:

Smooth



16 ridges per segment

- You can edit the zig zag by going to the **Appearance** Panel ( ) in the **Docked Panels**. Click onto *'Zig Zag'* and the dialogue box will re-appear. You can edit the options again



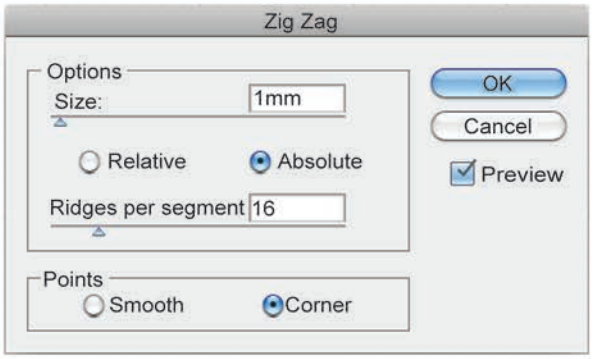
Drawing a Zig Zag Line:

- Draw a straight line with a weight of **1pt**

- Go to **Effect** in the menu bar

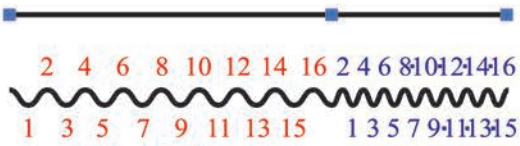
Distort AND Transform → **Zig Zag**

- A dialogue box will appear in which you can select options
- Tick the **Preview** option to check the zig zag before accepting it



- **Size:** in a horizontal line, this is the vertical height of the zig zag, either side of the centre line
- **Ridges per segment:** this is the amount of ridges on a **Path**/line between **Anchor Points**
- **Smooth:** the peaks of the zig zag are rounded
- **Corner:** the peaks of the zig zag are pointed

- The reason you would use a zig zag brush stroke as opposed to a zig zag distorted line is because it creates an even distribution of the zig zag regardless of the **Path**/line distance between **Anchor Points.** For example:



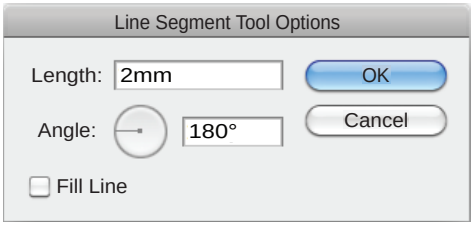
- The anchor point is not in the centre of the line, therefore the 16 ridges that are in the shorter part of the line seem relatively close. There is no way to change this in the Panel
- The **Zig Zag** distort is best used when there is an equal distance between anchor points along a path, as in a square or an ellipse

Create a Zig Zag Brush:

Selection Tool (V)
Rectangle Tool (M)
Line Segment Tool (\)

1. Draw a square **2mm** x **2mm**

2. Select the **Line Segment Tool (\)** and click onto the work area to open the **Line Segment Tool** options. Make the line **2mm** in length and **180º** and leave **Fill Line** unselected



3. Put a **1pt** black into the stroke box and no fill ( ) and select **Round Cap** from the **Stroke** panel

4. **Vertical Align Centre** ( ) and **Horizontal Align Centre** ( ) the line and the 2mm square. Note how the **Round Cap** butts out over the edge of the square, this allows for a smooth run from one repeat to the next

5. Turn the line into a **Zig Zag** line with the following options:
   Size: **0.5mm**
   Ridges per segment: **3** ridges
- Group the square and zig zag **(Ctrl G/Cmd G)**

6. Remove the fill from the background square so that it is transparent ( )

7. Select the *'Side Tile'* and open the **Brushes** Panel ( )
8. Follow the instructions to create a new **Pattern Brush** (ref page 80)
9. Name the new brush – Zig Zag Brush
10. Leave the **Scale** at **100%** and the **Spacing** at **0%**. Scale and spacing are both covered by the fact that you have drawn a boundary box of 2mm square
11. Click onto **Stretch to fit**
12. Click onto the arrow to bring up the **'Colorization' Method** options, select **Tints** and click onto **OK**

13. Do not delete the original Zig Zag design

Create a 2 Needle Cover Stitch Brush:

1. It will be easier if you put a fill the boundary box of the Zig Zag design again ( )
2. Select the **Line Segment Tool (\)**. Create a line **1mm** in length and **180º** and leave **Fill Line** un-selected
3. Put a **1pt** black into the stroke box and no fill ( ) and select **Round Cap** from the **Stroke** panel

4. Place this line on the apex of the zig zag ridge

5. Copy the line once by clicking onto the line, hold down the left mouse button and drag the line while holding down the **Alt** key at the same time (ref page 16). **Horizontal Align Centre** ( ) the straight lines, the zig zag line and the *'boundary box'*
6. Make the zig zag stroke weight **0.5pt**

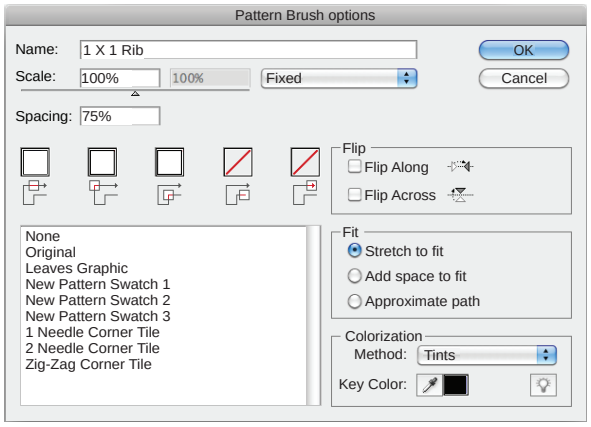
7. Remove the fill from the boundary box and create a new brush ( )

RIB, SPOT AND GATHER BRUSHES

Create a 1x1 Rib:

1. Draw a vertical line (90°) with the **Line Segment Tool (\) 1pt** and at least **5mm** long

2. There is no need to do a boundary repeat box around this as it is a very simple brush stroke
3. Select the line and create a new (⧉) **Pattern Brush**
4. Follow all the same instructions as other brush strokes except the **Spacing**; make this 75%



Create a 2x1 and a 3x2 Rib:

- These two rib variations are done the same way as the original brush strokes instructions with the repeat boundary box and the **Spacing** set at 0%

1. Create the rib designs. We used the single line rib stroke and a **Keyboard Increment** of 0.5mm to create these two rib designs

2x1 3x2

2. Go into **Outline View (Ctrl K/Cmd K)**
3. Draw a boundary box over the repeat
4. Return to **Preview View (Ctrl K/Cmd K)**
5. Send the boundary box to the back **(Shift Ctrl [/ Shift Cmd [)**

6. Remove the fill from the boundary box and create a new brush (⧉)

Create a Spot Brush:

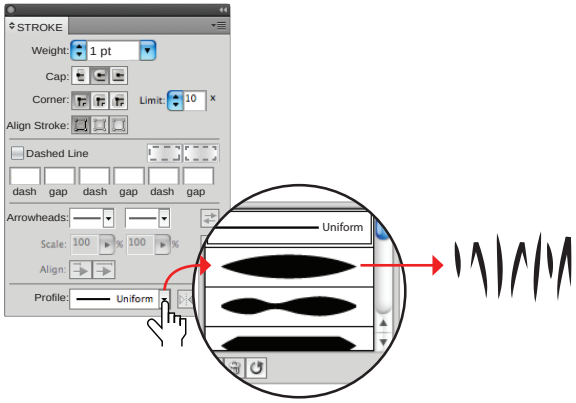
1. Click onto the **Ellipse Tool (L)** and draw a circle

2. There is no need to do a boundary repeat box around this as it is a very simple brush stroke
3. Select the circle and create a new brush stroke
4. Follow all the same instructions as other brush strokes except the **Spacing:** make this 20%

Create a Gathering Brush:

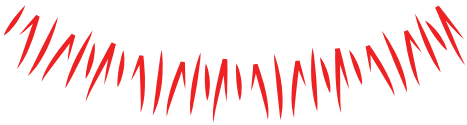
1. Click onto the **Pen Tool (P)** and draw a series of gathers

2. Click onto the line **Profile** options in the stroke panel and select the first profile



3. Copy the lines and drag them to the right holding down the **Shift** key at the same time, to move the gather lines in a straight line; change the stroke colour to differentiate them. Draw the repeat box using the copied gathers as a guide for the repeat

4. Send the boundary box to the back **(Shift Ctrl [/ Shift Cmd [)**. Create the new brush stroke (⧉)

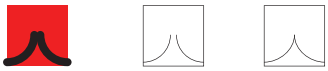


Create a Scallop Edge Brush Stroke:

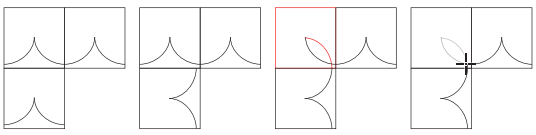
So far we have created a 1 needle and a 2 needle Pattern brush with a corner tile. These brushes do not have a definite direction that they need to face so both the inner corner and the outer corner tiles can be the same. In the following brush this is not the case and we need to create first two different corner tiles and second a brush with the side tile facing up and then a brush with the tile facing down.

1. Select the **Rectangle Tool (M)** and draw a **2mm** square again
2. Draw a **1.8mm** circle with a **1pt** stroke and delete the top and left anchor points
3. **Horizontal Align Left** the 1/4 circle and the square. Nudge the circle to line up with the bottom of the square, being careful to keep the edge of the stroke within the confines of the square. **Reflect** the 1/4 circle and line it up with the other side of the square

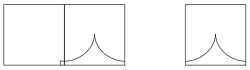
4. Go to **Outline View** and **Average** the two top anchor points of the 1/4 circles. Do not join them. (**Remember**: to toggle between **Preview** and **Outline** views **Ctrl Y**/**Cmd Y**)



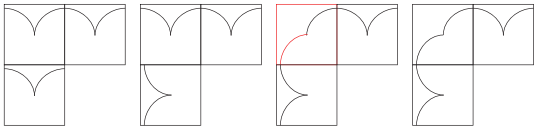
5. Set the **Keyboard Increment** to **2mm** and copy the tile once to the right and once down
6. Rotate the bottom tile **90°** in an anti-clockwise direction
7. Select the left 1/4 circle and the square and **Rotate** them **90°** in an anti-clockwise direction to line up with the bottom tile, as illustrated
8. Click onto the **Scissor Tool (C)** (ref page 21) and cut and delete the excess line beyond the junction of the two lines. The first **Corner Tile** is complete. Delete the bottom tile as this is no longer needed



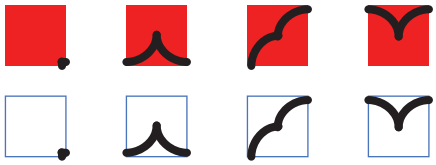
9. This design is a one way-design and we will need to create a different corner tile for the inner corner. Copy the Side Tile once



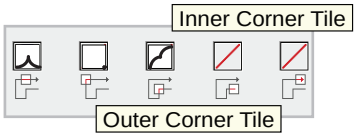
10. Rotate the copied tile **180°**
11. Copy this tile once to the right and once down
12. Select the left 1/4 circle and the square and **Rotate** them **90°** in an anti-clockwise direction to line up with the bottom tile, as illustrated
13. Select the two anchor points on the 1/4 circles closest to the centre of the square and **Average** them, do not join them



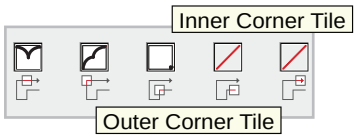
14. Go back to **Preview** and delete all the tiles except the two corner tiles and the up-facing side tile and the down-facing side tile
15. Remove the fill from the boundary squares ( )

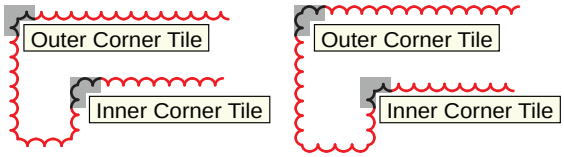


16. Drag the first corner tile into the **Swatches** panel and name it **Outer Corner Scallop**
17. Drag the second tile into the **Swatches** panel and name it **Inner Corner Scallop**
18. Select the up-facing side tile and open the **Brushes** panel and create a new brush ( ), name the brush *'Scallop 1'*
19. Click onto the **Outer Corner Tile** and select the **Outer Corner Scallop** from the swatch list (ref page 80-81). Click onto the next tile, the **Inner Corner Tile** and select the **Inner Corner Scallop** from the swatch list



20. Select the down-facing side tile and open the **Brushes** panel and create a new brush ( ), name the brush *'Scallop 2'* and follow the instructions for step 16 but transpose the inner and outer corner tiles



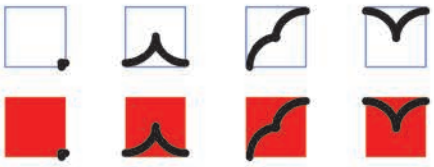


ONE-WAY BRUSH WITH A CORNER – BLANKET STITCH

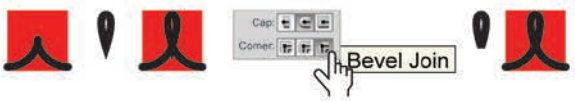
Create a Blanket Stitch Brush Stroke:

The Blanket Stitch will build on the Scallop Brush. We have added this to demonstrate how important it is to keep consistency throughout your work, which in turn makes it much easier to build on previous work and keeps your library of brush strokes consistent with each other. It goes without saying that it all depends on the final appearance you wish to create and communicating the right image is most important.

1. We will use the Scallop Brush as the base for the blanket stitch. Take the four tiles you created for the scallop and put a colour fill back in the boundary squares

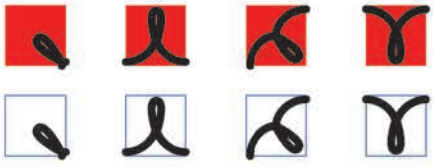


2. Create the loop for the blanket stitch:
- Using the first side tile as a guide, draw a loop with the **Pen Tool (P)** with one round end and one pointed end, note the long point at the point end of the loop
- Go to the **Stroke** panel ( ) and click onto the **Bevel Join** next to the **Corner** options under the **Cap** options, this will flatten the point

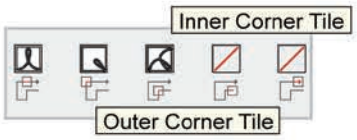


3. Place the loop onto each tile:
- In the first corner tile rotate it 45° anti-clockwise
- In the second tile it should be face up, **Group (Ctrl G/Cmd G)** this tile and make a copy to fully rotate 180°
- In the next corner tile rotate the loop 45° clockwise

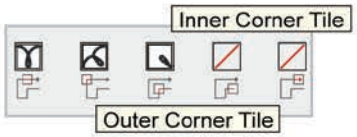
4. Remove the colour from the background square



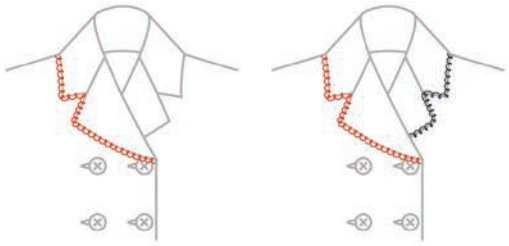
5. Drag the first corner tile into the **Swatches** panel and name it **Outer Corner Scallop**
6. Drag the second tile into the **Swatches** panel and name it **Inner Corner Scallop**
7. Select the up-facing side tile and open the **Brushes** panel and create a new brush ( ), name the brush *'Blanket 1'*
8. Click onto the **Outer Corner Tile** and select the **Outer Corner Scallop** from the swatch list (ref page 80-81). Click onto the next tile, the **Inner Corner Tile** and select the **Inner Corner Scallop** from the swatch list



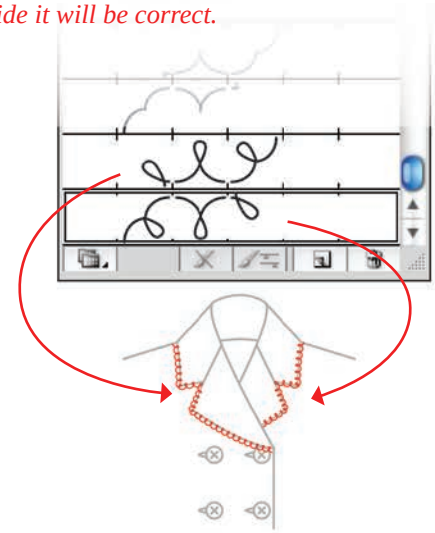
9. Select the down-facing side tile and open the **Brushes** panel and create a new brush ( ), name the brush *'Scallop 2'* and follow the instructions for step 16 but transpose the inner and outer corner tiles



The reason we create two separate brush strokes is because these brushes have a notable right side up and if a line with one of the brushes is reflected the brush stroke will be incorrect.



However, if we put the opposite brush on the reflected side it will be correct.



Create a Simple Lace Brush Stroke:

1. Select the **Rectangle Tool (M)** and draw a square 4mm x 4mm. Draw a circle and create a simple flower pattern as the illustration

2. Select the square and make it transparent ( )

3. Marquee over the design and drag it into the **Swatches** panel, deselect the design and name this swatch *'Lace Corner'*
4. Select the design and create a new brush ( )

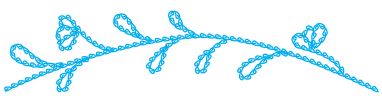
Note the difference between using a completely symmetrical design to using a design with an obvious direction.

Create a Chain Stitch Brush Stroke:

1. Create a rectangle **3mm** wide x **2mm** high
2. Click onto the **Pen Tool (P)** and draw a **Chain Stitch** link within the confines of the rectangle
3. Set the **Keyboard Increment** to **2mm** and copy two more links either side of the original to establish the repeat, **2mm**
4. Select one side of the rectangle with the **Direct Selection Tool (A)** and move it in by **1mm** to form a **2mm** repeat boundary box

5. Remove the fill from the square and create the new brush ( )

Chain stitch is a decorative embroidery stitch and will generally only be used on smooth curved lines. Corner tiles are not necessary.



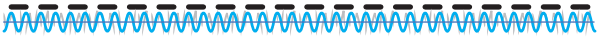
Create Rouching Combining Different Brush Strokes: 1 Needle Brush, Gather Brush and Zig Zag Brush

1. Draw a straight horizontal line 1pt with a black stroke ( )
2. Copy this line once with the direction keys and set the **Keyboard Increment** to **1mm (Ctrl K/Cmd K)**and change the stroke to gre)
3. Copy this line once with the direction keys and set the **Keyboard Increment** to **1mm** and change the stroke to blue ( )

4. Select the black line and change it to the **1 Needle Brush**

5. Select the grey line and change it to the **Gather Brush**

6. Select the blue stroke and change it to the **Zig Zag Brush**

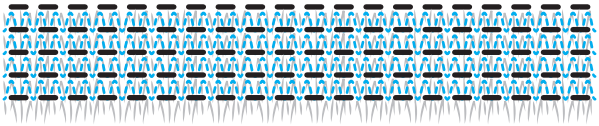


7. Convert the zig zag brush stroke to outlines:
   Go to **Object** in the menu bar
   ↓
   Expand Appearance

You can convert brush strokes into the original paths in order to edit the individual components of the brushed line. Illustrator places the components of the expanded path into a group.

8. Tick the dashed line option *(2pt dash and 2pt gap with a round cap)* to give the zig zag the appearance of an embroidered stitch line

9. Copy the three lines a few times to represent rouching



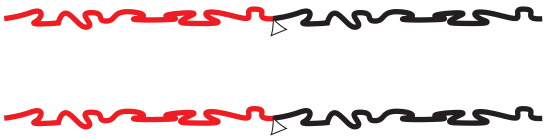
DOUBLE FRILL

Create a Double Frill with a Colour Fill:

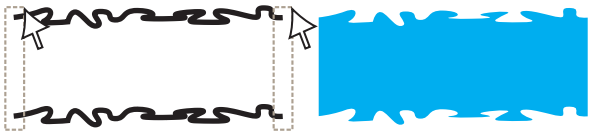
To achieve the non-uniform effect of this brush stroke it is easier to hand draw the frill first and then scan it into Adobe Illustrator.

1. Lock the scanned image **(Ctrl 2/Cmd 2)** and draw over the top of the frill, the longer the repeat the less uniform the frill. Reflect the frill from top to bottom and move this down approximately **2mm**

2. Copy the frill repeat to the right
3. Click onto the **Direct Selection Tool (A)** and align the lines of the first repeat with the second repeat. Delete the second repeat once this is done



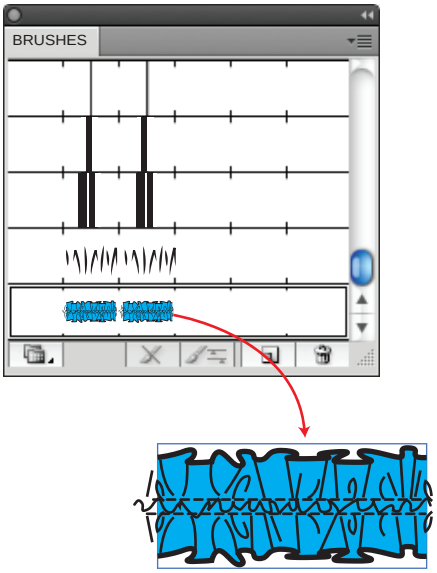
4. Marquee over the two lines and copy them to the back **(Ctrl C/Cmd C** and **Ctrl B/Cmd B)**
5. Do not deselect them and move them clear of the first two lines
6. Marquee over the anchor points on either end with the **Direct Selection Tool (A)**
7. Join the **anchor points** and fill the shape ( ) no stroke

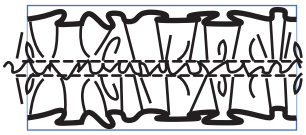


8. Move the solid shape back behind the lines and group them **(Ctrl G/Cmd G)**. Draw the centre stitch lines and gathers with the **Pen Tool (P)**

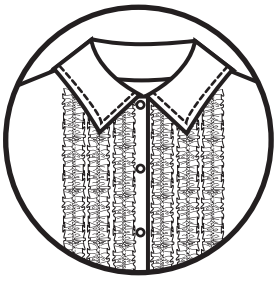
9. Draw the repeat boundary box and create the brush stroke

10. This brush stroke has a colour in it, therefore the way of saving the brush will have one difference: in the **Colorization** option next to **Method** the choice must be left at **None**
11. Changing the colour of this brush stroke will require dragging the brush stroke out of the panel, changing the colour and re-creating the brush stroke





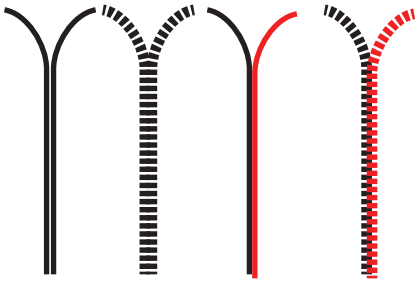
12. Double frill placed in a shirt



13. The same principles can be applied to any brush stroke

Create a Simple Zip:

1. Draw the zip line and change the line weight to 2pt
2. Tick the '*Dashed Line*' option and make the '*Dash*' 1pt and the '*Gap*' 1pt
3. Reflect and copy the line
4. You can offset and overlap the two sides of the zip slightly to make it more realistic



Create a Realistic Zip Brush Stroke:

This zip would be used for a prominent zip detail. It comprises two sides and a centre brush stroke, that is, three brush strokes.

Closed zip Side 1 Side 2

1. Click onto the **Ellipse Tool (L)** and create a **1mm** width and height circle
2. Set the **Keyboard Increment** to **2mm** and copy the circle once to the right

3. Marquee over the top **anchor point** and the left **anchor point** of the left circle with the **Direct Selection Tool (A)** and delete them. Do the same for the bottom **anchor point** and right **anchor point** of the right circle to be left with an 'S' shape
4. **Average** and **Join** the centre anchor points of the 'S' shape

5. Click onto the **Pen Tool (P)** and rest the pen cursor onto the bottom left side of the 'S' shape and when you see the forward slash ( ) click to join onto the open end **anchor point**. Hold down the **Shift** key and draw a 90° line from that point
6. **Reflect** and copy that shape and move it over to the right with the **Keyboard Direction Arrows**
7. **Average** and **Join** the centre **anchor points**
8. Marquee over the two bottom open end **anchor points** and **Join** them

9. Copy the zip tooth once to the right (using the **Keyboard Direction Arrows**)

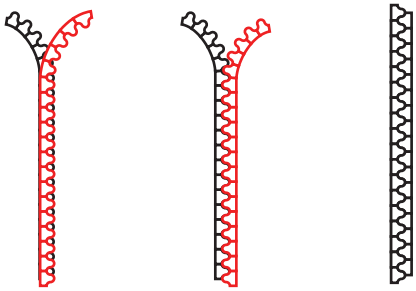
10. *'Horizontal'* Reflect the tooth and move it into place. It is easier to check this in Outline View **(Ctrl K/Cmd K)**. Group the zip teeth **(Ctrl G/Cmd G)**

11. You are ready to create the boundary box. Select the **Rectangle Tool (M)** and create a rectangle **2mm** wide x **4mm** high
12. **Vertical align Centre** ( ) and **Horizontal Align Centre** ( ) the zip teeth and the '*boundary box*'

13. Copy the zip and '*boundary box*' twice to the right. Do not change the first Closed Zip graphic
14. In the first copy delete the top and one bottom zip tooth, **Horizontal Align** the tooth and '*boundary box*' . In the next copy delete the two bottom teeth and **Horizontal Align** the tooth and '*boundary box*'

15. *You have three separate zip brushes that work with each other*

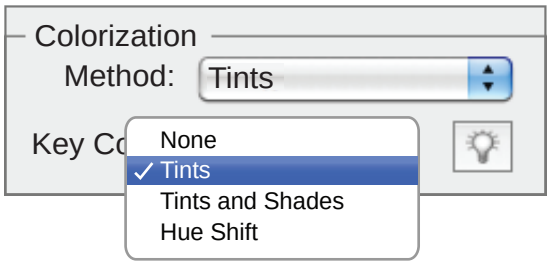
*The reason we create two separate brush strokes is because this brush has a notable right side up and if a line with **Side 1** is reflected the brush stroke will be incorrect - see illustration* **a**. *The illustration with **Side 2** is illustrated in* **b.**



a Side 1 only **b** Side 1 & 2 Closed Zip

COLORIZATION AND EXPAND BRUSHES

Stroke Colour:



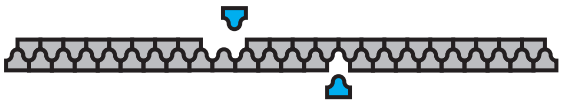
None:

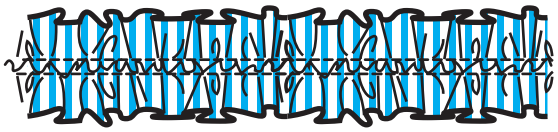
Tints:

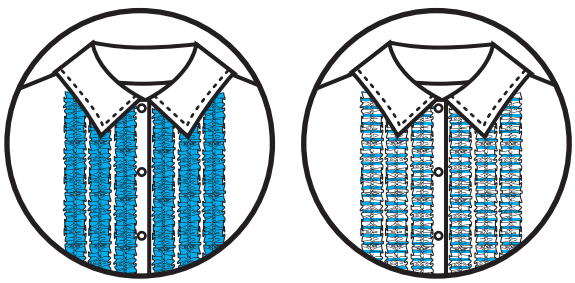
Tints and Shades:

Hue Shift:

Expanded Brushes:







Colorization:

The final colour of a brush line will depend on the following two parameters: 1. The colour of the stroke that you use when creating the brush (ref page 80), and (2) The 'Colorization Method' used in the brushes options.

They are:

1. **None:** displays the brush with the original colours as represented in the **Brushes Panel.** The brush artwork had a grey fill and black stroke
2. **Tints:** displays the brush in tints of the stroke colour. Portions of the art that are black become the stroke colour, portions that are not black become tints of the stroke colour, and white remains white
3. **Tints and Shades:** displays the brush stroke in tints and shades of the stroke colour. **Tints and Shades** maintains black and white, and everything between becomes a blend through the stroke colour. Greyscale works best when you use **Tints and Shades**
4. **Hue Shift:** uses the key colour in the brush artwork, as shown in the **Key Color box**. (By default, the key colour is the most prominent colour in the art.) Everything in the brush artwork that is the key colour becomes the stroke colour. Other colours are represented as related colours to the stroke colour. **Hue Shift** maintains black, white, and grey. **Hue Shift** works best with multiple colour brushes
5. For information and samples about each choice, click **Tips** (Adobe CS5 Help)

Expanded Brush Stroke:

*Expanding a brush will make it editable once more. In the same way as you break the link to a symbol to be able to edit the symbol, you can **'expand'** the brush stroke in the illustration to be able to edit it.*

- Go to **Object** in the Menu Bar
  ↓
  Expand Appearance
- This will make the brush editable in the illustration making it possible for you to either change colour of the brush or to delete parts of the brush
- We often use this to put a pattern fill in the brush

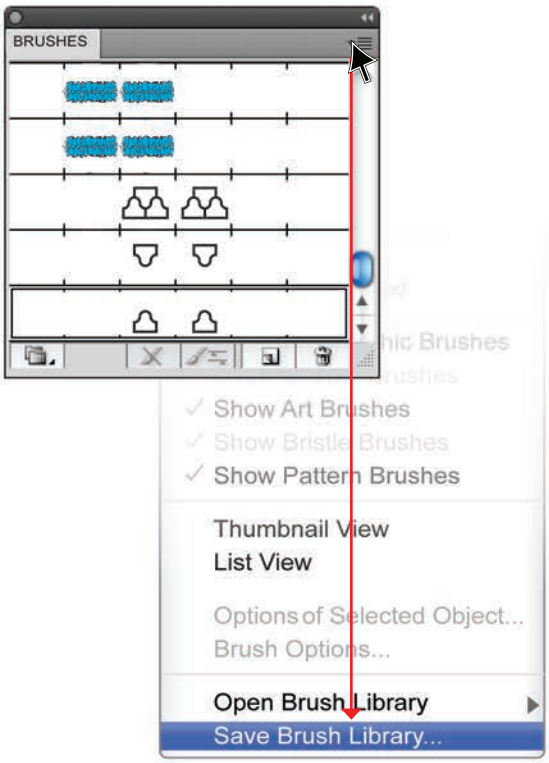
1. For example: The frill has a dummy colour in it to allow for easy selection
2. Expand the brush and select the fill colour in the frill
3. **Select Same Fill Colour** (ref page 61)
4. Fill the shapes with a pattern swatch

SAVE A BRUSH STROKE / ACCESSORIES LIBRARY

Save a Brush Stroke Library:

*You now have the start of a good basic **Brush Stroke Library**. You can save this library so that it is easily accessible in any other file and you can add to it as well (ref to page 104 for details).*

1. Save the file as an a.i (Adobe Illustrator) file with a path you can easily find again. You can update the library whenever you create a new brush
2. Save the **Brush Library** by clicking onto the option arrow just below the minimise/maximise/close icons

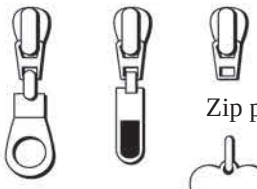


- A menu will appear with an option to save this Brush Library
- Click onto **Save Brush Library**
- Name the file - **General Brush Strokes Library** - so you can easily access it
- **Save**
- The file will now be located in the **Symbol Library** section of the program
- To re-access the library click onto the arrow again and go to **Open Brush Library** → **User Defined**
- A file directory will open and you will be able to select the library you have created

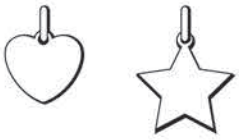
Create a File of Useful Accessories:

The following are some ideas of garment trims and accessories that have been created and filed in a Symbol Library. The accessories were created either by drawing over scanned accessories or by downloading accessory ranges from the Internet.

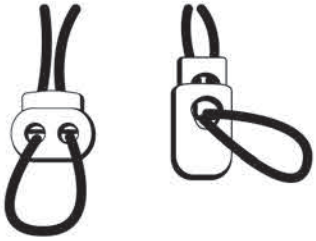
Zip pull variations



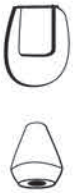
Zip pull trinkets



Cord locks



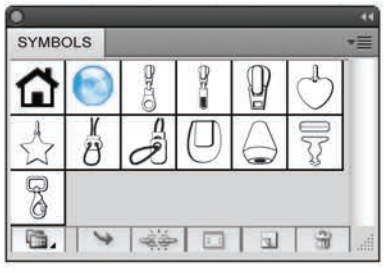
Cord ends



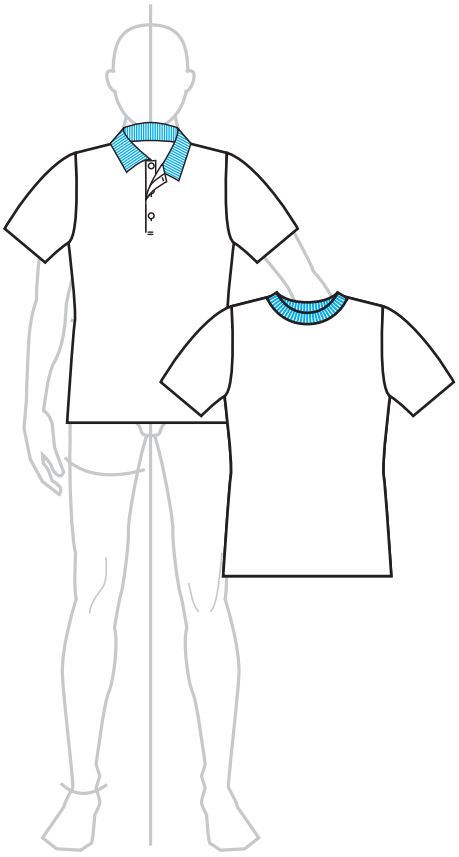
Overall buckle and slide adjuster

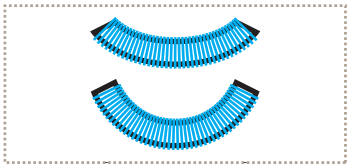
Dog clip

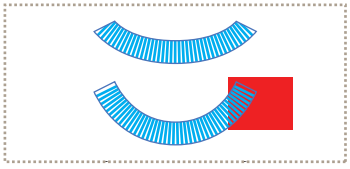
- Save this Symbol Library as you did the brush strokes: First as an Illustrator (.ai) file and then as a library



MASKING: RIB NECKBAND







Masking a Rib Neckband and Collar:

Selection Tool (V)
Direct Selection Tool (A)
Line Segment Tool (\)

It would also be useful to keep a library of common garment pieces that you will use often. A rib neckband; a polo collar or a business shirt collar. The following information will demonstrate how to create rib trims using the **Clipping Mask**

Clipping Mask**: a **Clipping Mask** works like a frame containing the objects within the confines of the masking shape. The 'mask' shape can only be a vector image; bitmap and vector images can be masked. **When an image is masked all the objects within the mask are grouped.

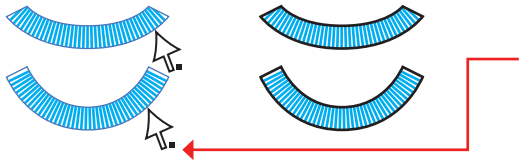
- Create a basic short-sleeve tee-shirt shape on the male youth croquis (ref page 40-43, the principles are all the same, only the shape differs)
- Select the centre front neckline anchor point and the centre back neckline point with the **Direct Selection Tool (A)**
- Copy the lines to the front **(Ctrl C/Cmd C; Ctrl F/ Cmd F)**
- Select these lines and move them clear of the tee-shirt and of each other. **Offset** the path making the **offset** measurement **1mm**, check with the preview to see if this size suits your tee-shirt (ref page 52-53)
- The original neck line is now the rib line
- Select both lines, go to the **General Brush Strokes Library** you have created and select the 1x1 Rib brush
- Select both the rib lines on each neckband and **Send To The Back (Shift Ctrl [/Shift Cmd [)**

- Select the front rib and the neckband shape and **Make a Clipping Mask**
- Go to **Object** in the Menu Bar

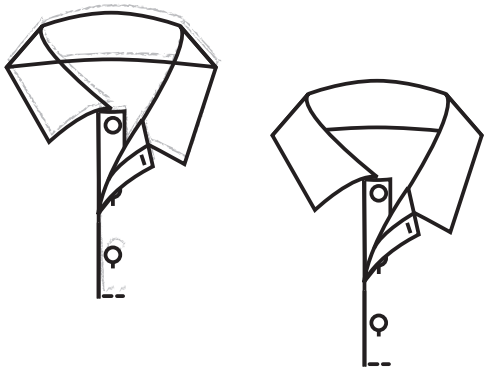
  ↓

  Clipping Mask → Make (Ctrl 7/Cmd 7)
- Do the same for the back

- Once the **Clipping Mask** has been made, the original shape that you used as the mask will become transparent: note the red square in the illustration

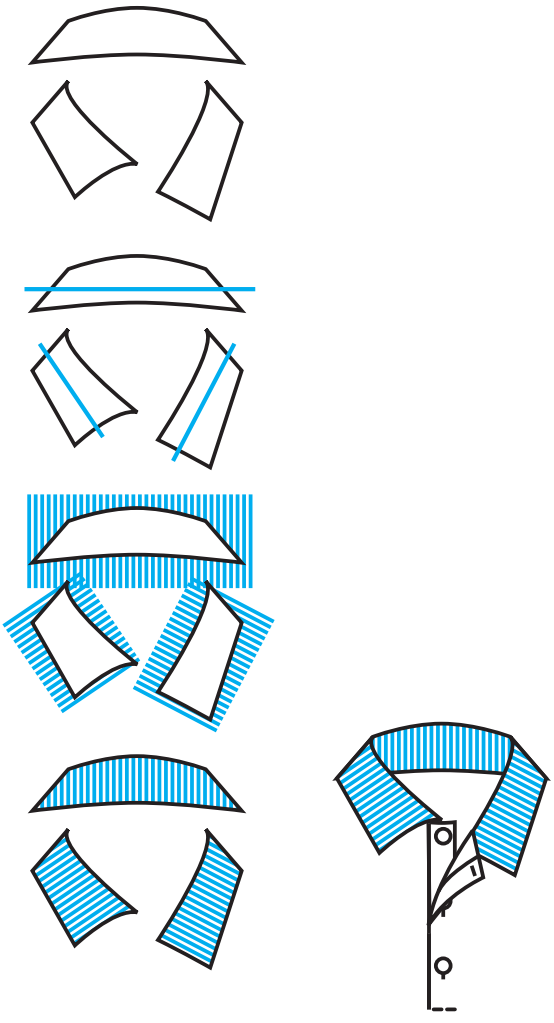


- Click onto the edge of the transparent neckband shape with the **Direct Selection Tool (A)**
- The way to determine that the **Direct Selection Tool** is resting on the edge of the shape is by the appearance of a black square, when this occurs you can select the shape and click onto **Default Fill and Stroke** ( )



- Create the whole shape of the polo collar without the rib first

Tip: *when a shape is difficult to achieve on screen it is helpful to draw the shape over a photograph, or if you find it easier, hand draw the shape, scan it in and draw over the top of it.*



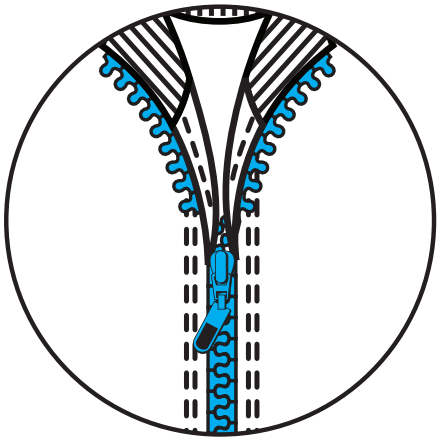
- Copy the collar shapes and move them clear from the tee-shirt shape (keep the original collar as reference) **(Ctrl C/Cmd C, Ctrl V/Cmd V)**
- Click onto the **Line Segment Tool (P)** and draw a line through the centre of each collar shape
- Select all the lines, go to the **General Brush Strokes Library** you have created and select the 1x1 Rib brush
- Select the rib line on each collar shape and **Send Them To The Back** Hot Key **Shift Ctrl [**/Apple OS **Shift Cmd [**
- Select the rib and one of the collar shapes and **Make a Clipping Mask**
- Go to **Object** in the Menu Bar

Clipping Mask → Make (Ctrl 7/Cmd 7)

Or to 'Release Clipping Mask' **(Shift Ctrl 7/Shift Cmd 7)**, to release a Clipping Mask

*Note: a **Mask** cannot be made with more than one shape at a time; that is, you cannot select the three collar shapes and go to **Make a Clipping Mask** in one operation. Each shape must be selected and masked individually. However, you can mask as many shapes as you need to.*

EXPANDED BRUSH STROKES AND TRIMS



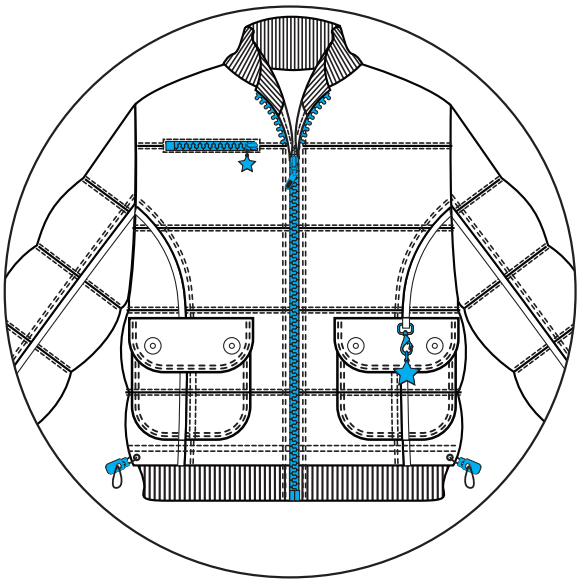
Expanded Brush Strokes and Symbol Trims:

- The zip brush was created with a white fill in each tooth
- This zip front was created by expanding the zip brush (ref page 96)
- The zip pull is a symbol from the **Trim Library**
- It has been expanded so that it can be manipulated and have colour added

- Zip pull with trinket

- Dog clip with trinket

- Cord lock



- Completed jacket

Create a Basic Style Library:

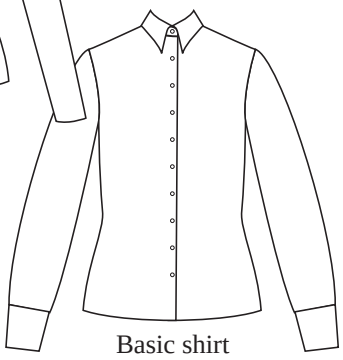
- You can scan the croquis on page 102 to create a library of basic style shapes - here are a few examples
- The detail or lack of detail are a personal choice

Women's:

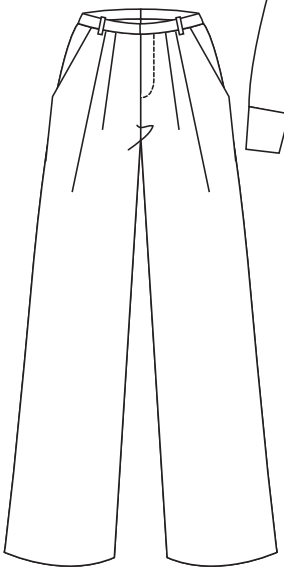
Single-breasted long-line jacket

Single-breasted short jacket

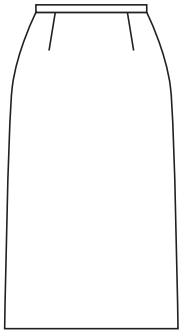
Tee-shirt



Basic shirt

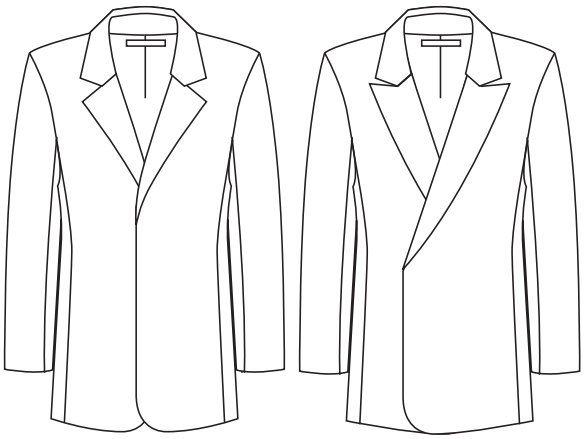


Basic tailored pant

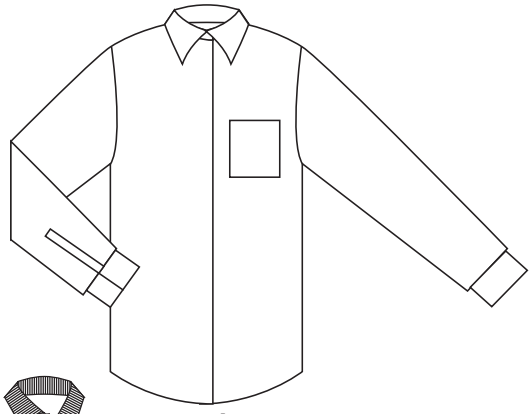


Basic pencil skirt

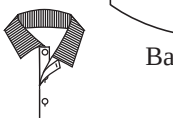
Men's:



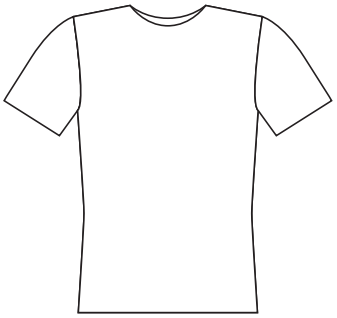
Jackets: basic single-breasted and basic double-breasted



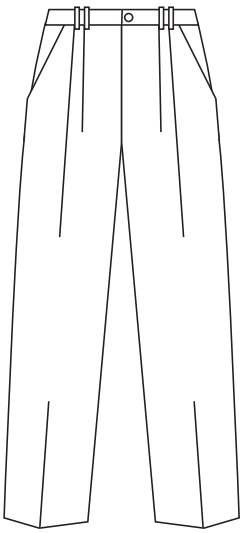
Basic shirt



Polo collar and rib neck



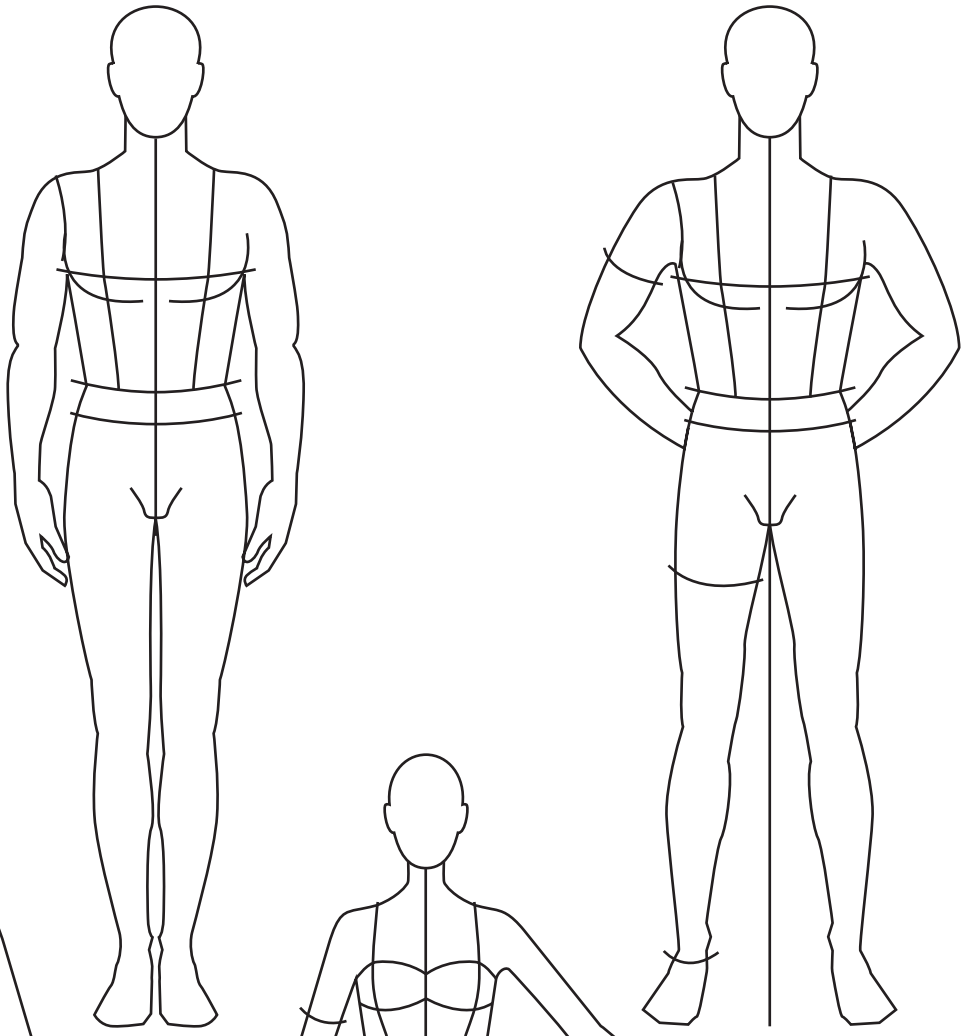
Tee-shirt



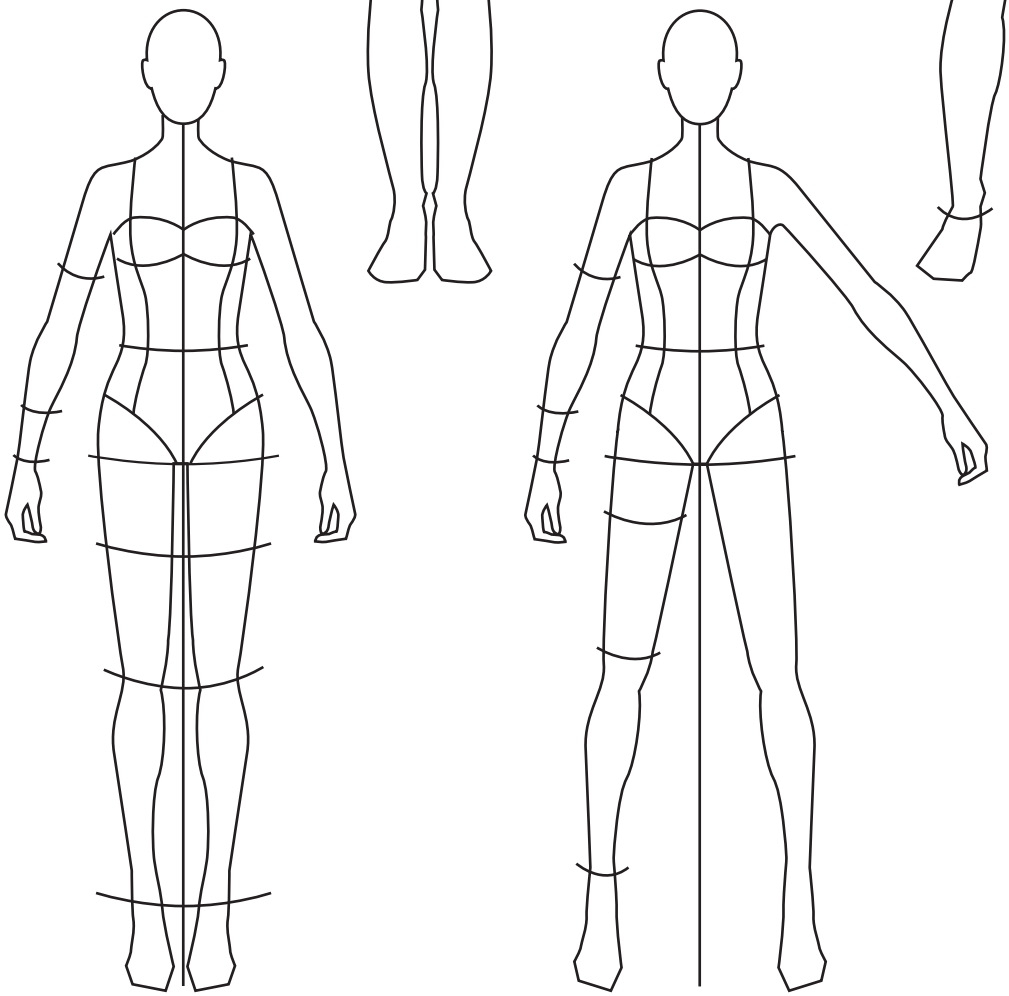
Basic tailored pant

CROQUIS: ADULTS

Male Croquis:

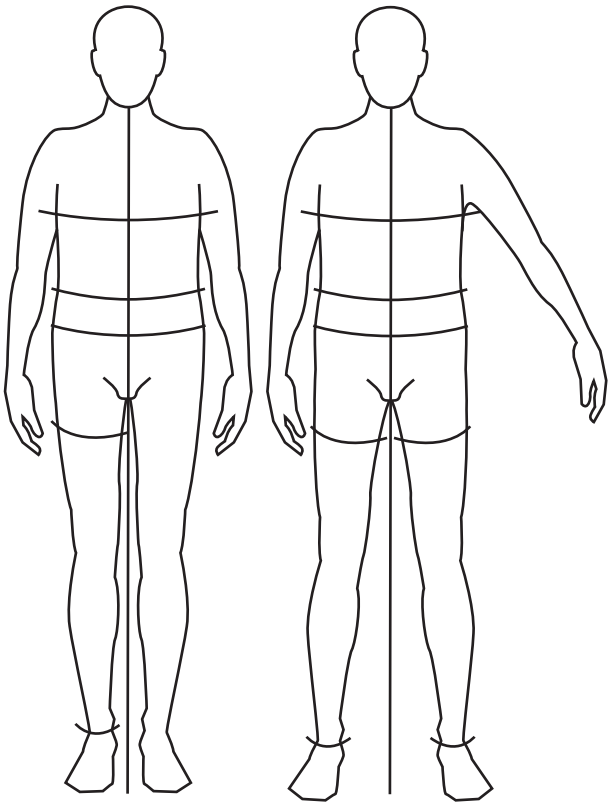


Female Croquis:

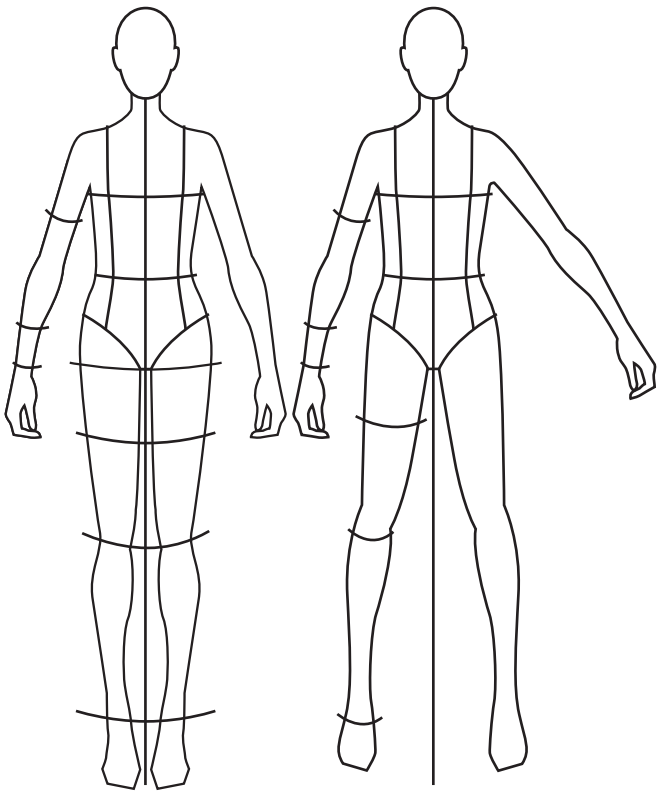


The Croquis Family (pages 102–103) can be downloaded from the wiley website: www.wiley.com/go/centner_adobe

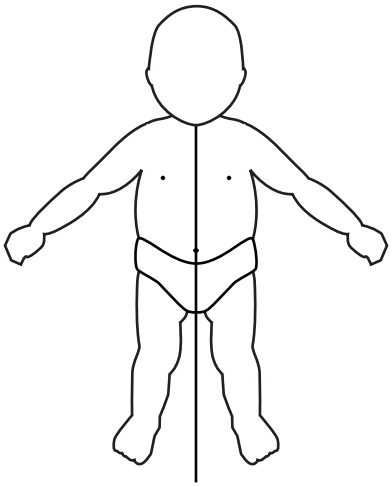
Youth Male Croquis:



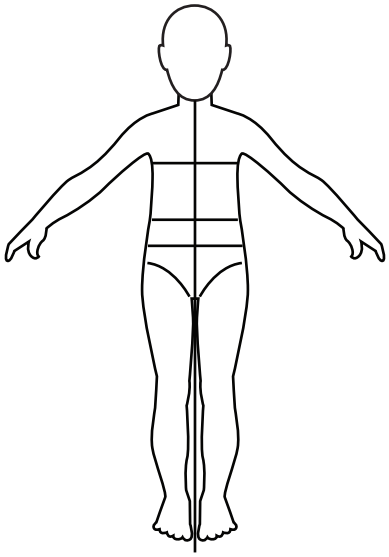
Youth Female Croquis:

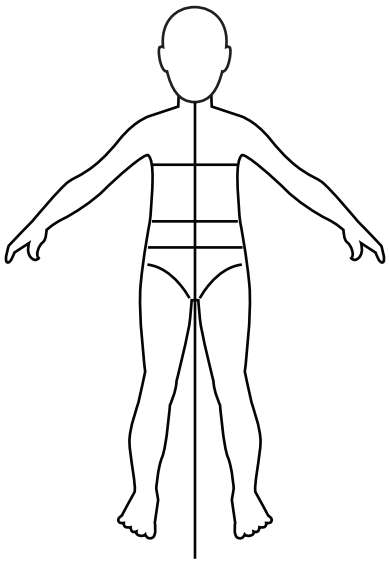


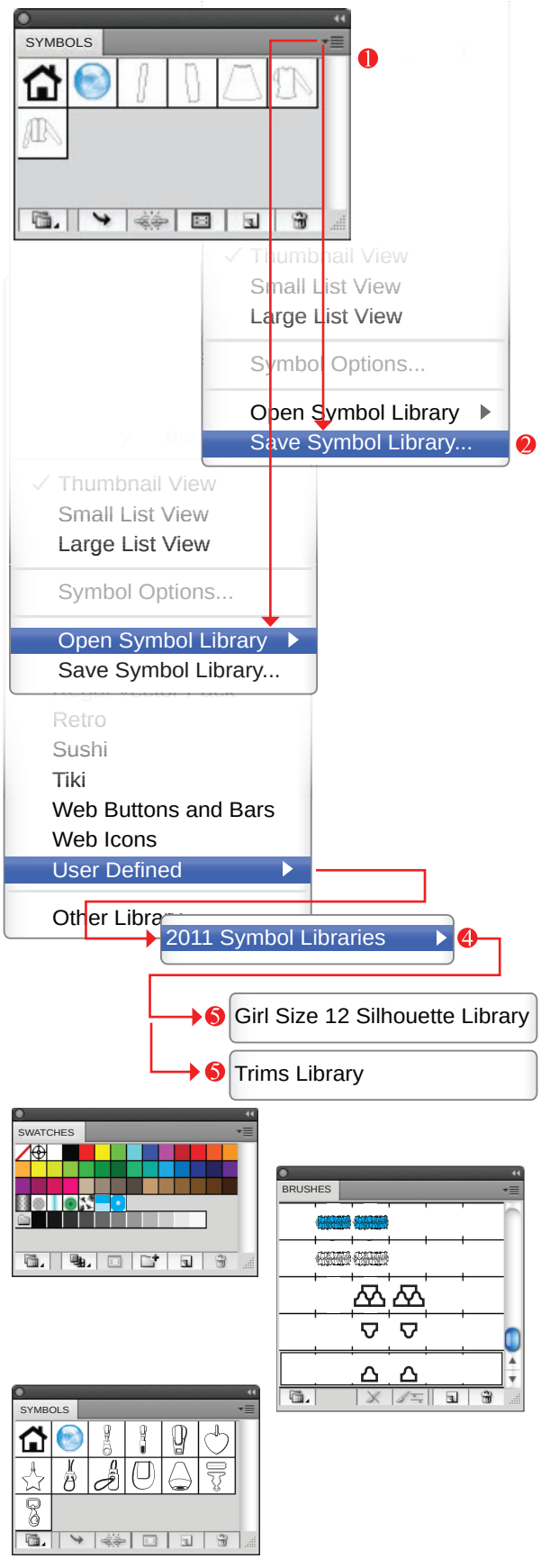
Baby Croquis:



Toddler to 6 years Croquis:







Understanding Libraries:

In Chapter 3 you have been introduced to the process of saving libraries. We have demonstrated this with the Symbol library. The following is an explanation of how and where you should save your libraries and how to add items to an existing library.

- Always save your library as an *Adobe Illustrator (.ai)* file in a directory that you can find again. For file management purposes you can have a folder on your main user drive named: ***Your Name* Libraries**
- In this folder you can save your **Garment Silhouette Library**; your **Trims and Accessories Library**; your **Brush Library** and your **Colour Palette and Pattern Swatch Library**
- Once you have done that you can now save these files in the respective libraries:

❶ Click onto the option arrow on the righthand side of the panel. A drop-down menu will appear with an option to save the library

❷ Click onto **Save Symbol, Swatch or Brush Library**

❸ This will open up a directory where you can create your own folder and save your library into that folder

❹ When you save a **Symbol, Swatch or Brush Library** for the first time you can create a specific folder: **2011 Symbol Library** or **2011 Swatches Library** or **2011 Brushes Library**

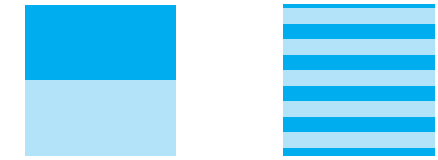
❺ You can then name and save the library

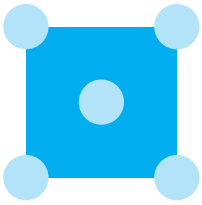
❻ If you create a new Symbol, Swatch or Brush and you would like to save it to your library, you will have to open the original file again

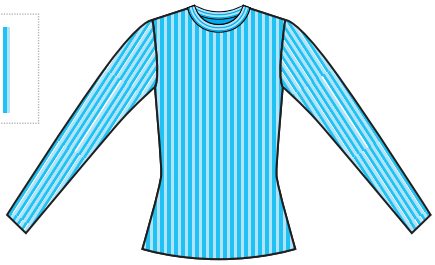
❼ Copy the new item into the file and load it, if it is a symbol or colour swatch. **Pattern Swatches** and **Pattern Brushes** will automatically load into the the respective panels. Save the file again

It is important to note here that this will NOT update your libraries and the old ones need to be REPLACED with the new library.

❽ With the new file open once again go through steps 1-3 above and *'save over'* or *'replace'* the library. It is best not to save it with a new name, but just to save over or replace the original library. The exception would be when saving swatch colours you would save these files in seasons and ranges







An important point to remember:

Consistency in your trade and fashion drawings is very useful. It looks professional and is also easy to manage. As a rule of thumb we do the following stroke weights in all our garments

1. All outline strokes 1pt
2. All style cut lines 1pt
3. All drape and gather lines 0.5pt
4. All stitch lines and pattern brushes 0.75pt unless they are contained within a binding or a narrow trim, in this case the stroke weight must be appropriate

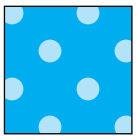
This is very useful when you want to select all the stitch lines, for example, and change them to a tone of the garment colour. The same would apply when you select internal drape lines

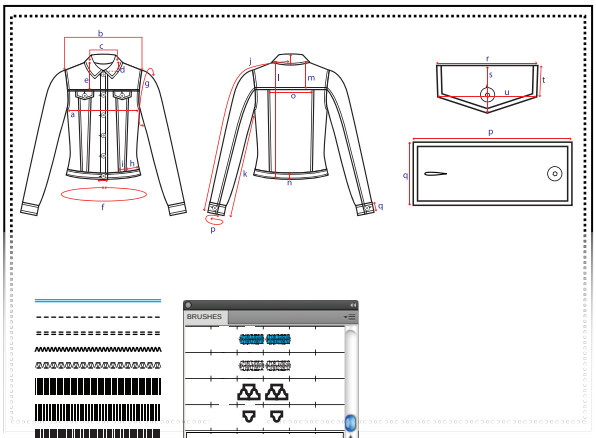
You will have noticed that throughout this chapter we have constantly kept brushes proportionate to each other, this is also helpful in maintaining consistency

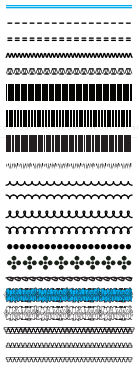
With pattern repeats, where ever possible, we create them in a realistic size and then scale the pattern in the garment

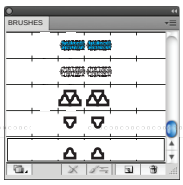
This is not the case when creating a fine rib repeat, this will be done to illustration scale

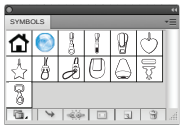
SUMMARY CHAPTER 3

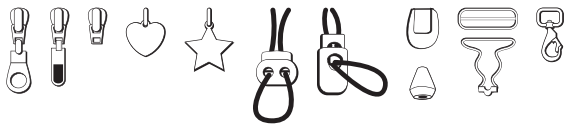


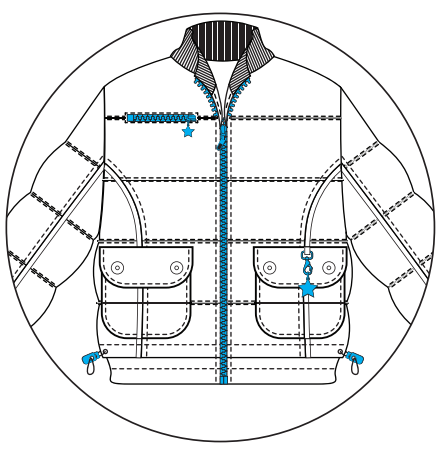












Key Points in Chapter 3:

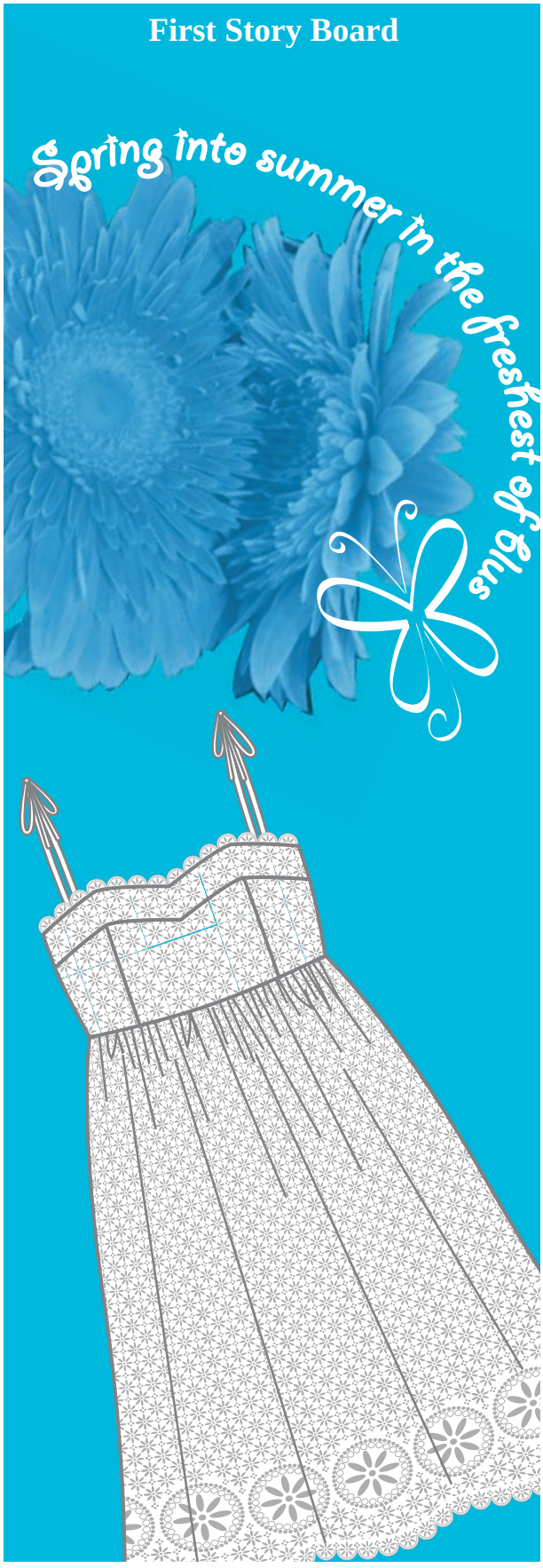
*In Chapter 3 you have learned how to create **Pattern** fills and **Brushes**. You have also learned about the **Symbol** and **Brushes** palettes and how to save libraries for later use.*

To summarise:

1. You have learned how to create and save a Symbol library with basic block garment shapes
2. How to use a symbol and make it editable with the **'Break Link to Symbol'** function
3. How to create a stripe pattern repeat and then turn it into a brush
4. How to create a spot pattern repeat where the edges of the repeat did not fall within the boundary of the repeat square
5. You have learned how to create a 1 needle and 2 needle top stitch with corner tiles and apply them to a jacket
6. How to create a number of different brushes with different attributes and how to expand and edit them
7. You have learned how to go about creating a symbol library for garment trims and a garment library with more detail
8. Finally we emphasised the importance of consistency

CHAPTER 4

STORY BOARDS



Chapter 4 introduces story boards using a mixture of scanned images, digital photographs and Adobe Illustrator drawings. We also introduce you to creating a pattern fill out of a scanned fabric and more complex pattern repeats and brush strokes. The illustration style is based on clean technical drawings. The unique components in each garment are demonstrated.

- Styling 108
- Rib top:
  - Pattern fills with scanned fabrics ..... 109 – 110
  - Change the colour of a scanned fabric 111
  - Open an existing brush library 112
  - Binding 113
  - Diamanté trim 114
- Jacket:
  - Two-colour top stitch brush 115
  - Gradient fills 116
  - Badge 117
- X-over top:
  - Distort tool and flower pattern fill 118
  - Pattern swatch colour change and pencil tool 119
- Yarn-dyed stripe top:
  - Creating a pattern with a scanned image ..... 120 – 121
- Skirt:
  - Pattern repeat in a scanned fabric 122
  - Creating an embroidery pattern brush 123
  - Waist tie and scale a scanned pattern 124
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- Shorts:
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- Dress:
  - Broderie Anglaise pattern fill ..... 128 – 129
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- Background flowers:
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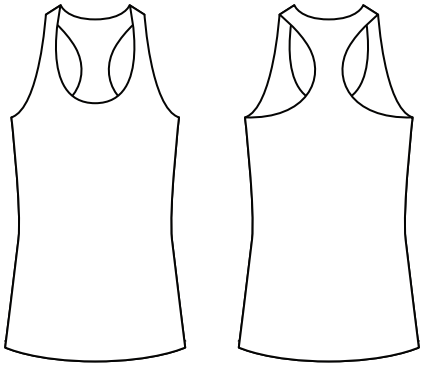
Note: some parts of headings and sub-headings may be summarised.

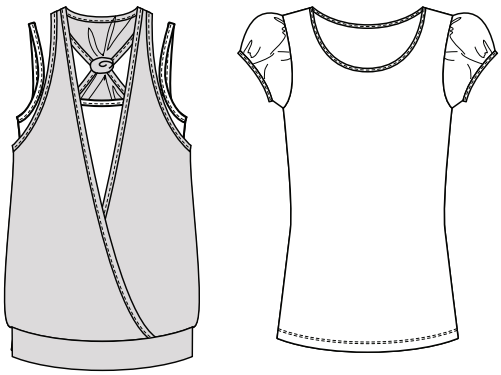
The final product in Chapter 4 is a story board made up of garments containing a variety of brush strokes, pattern fills, scanned images, badges, labels and logo buttons.

The structure of this chapter will take you through the details of the pattern fills, brush strokes and accessories in each garment, style by style. We will not be giving you instructions on how to draw the garment as the principles covered in Chapter 1, 2 and 3 have covered this. We will start with the simplest style and build up increasingly to more complex styles. We will include bitmap images as well as using type in the context of badges and a story board.

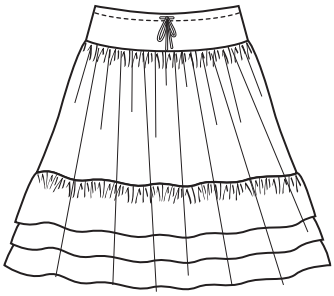
Draw up the following styles before you start:



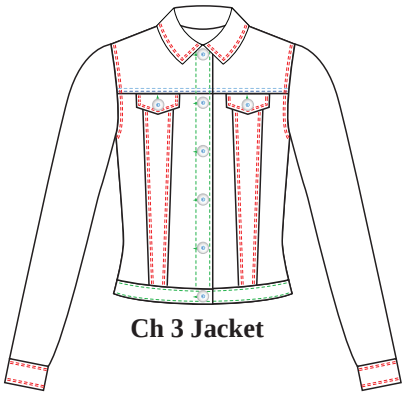
Rib top



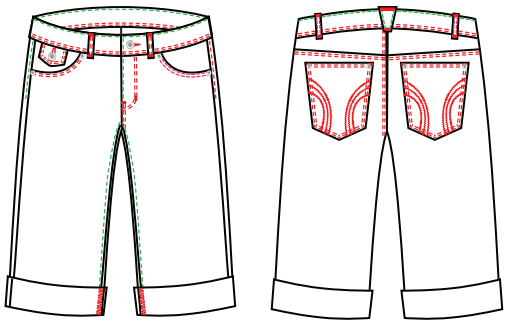
X–over top **Yarn–dyed stripe top**



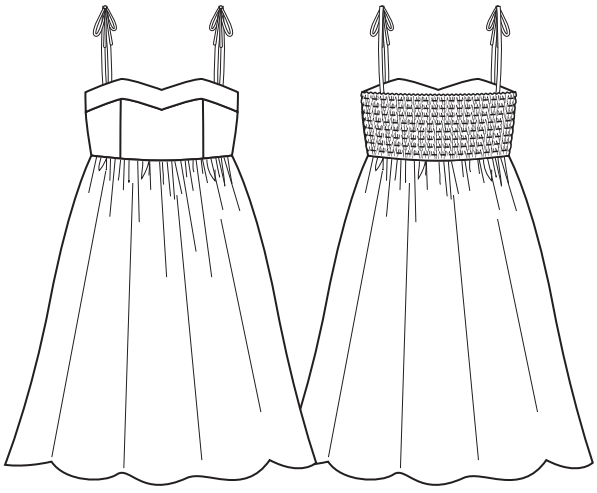
Skirt



Ch 3 Jacket



Denim shorts

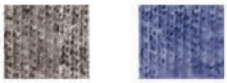


Broderie Anglaise dress

- Create a **New File** with four **Artboards** and **A4** page size (ref page 4)
- Save these styles into your original *'Adobe Illustrator Exercises'* folder and name the file *'Chapter 4 Exercises'*

Rib Top – Components:

1. **Scanned grey marl fabric and changed to navy marl colourway**



2. **2 Needle top stitching**

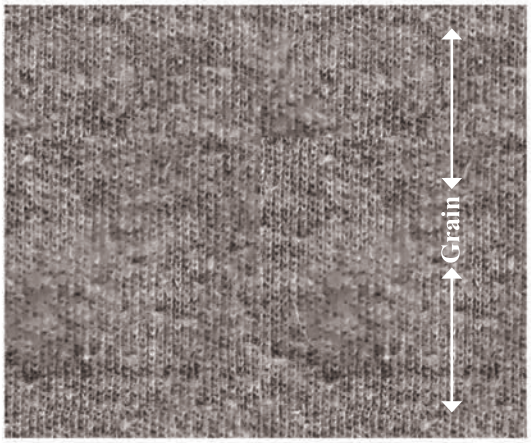
3. **Binding**

4. **Diamanté trim around neck**

- Create a **New File** and save this into your original folder

Scan a Plain Fabric:

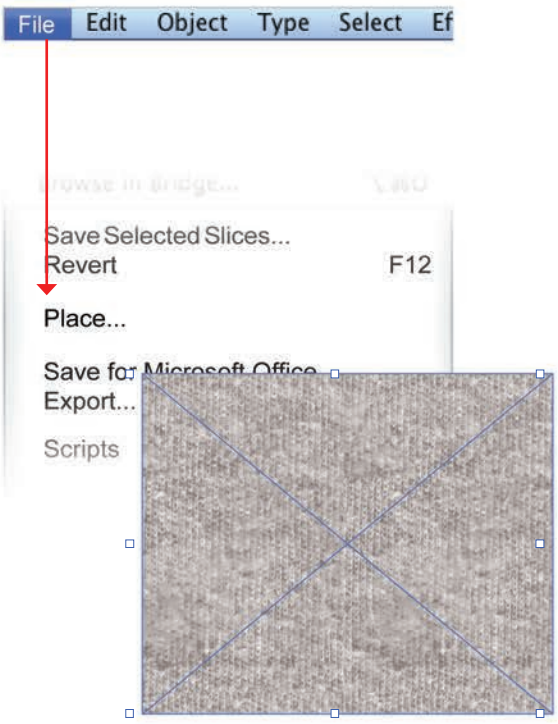
- Scan in an actual piece of grey marl or plain fabric and save as a JPEG or TIFF file onto your **Hard Drive**
  - **Adobe Illustrator Exercises**
    - **Grey Marl Scan**



- Please note all scanners are different and there are two points to consider:
  1. Scan the image at 200 dpi (dots per inch)
  2. Scan this image in colour

  For all other instructions follow the scanner instructions
- If your scanner allows, crop the image to about 10cm x 10cm before scanning

It is important to place the grain of the fabric parallel with the edge of the scanner: see the grain in the illustration.

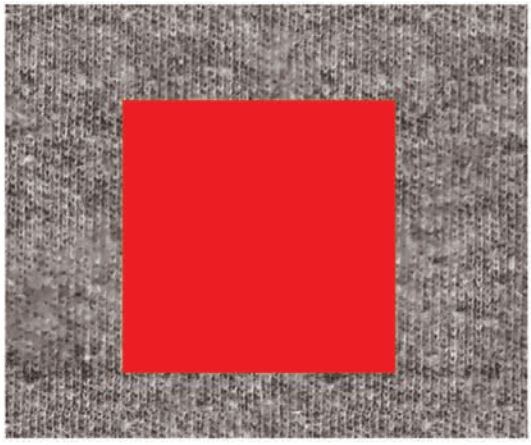


Create a Pattern Fill from the Grey Marl Scan:

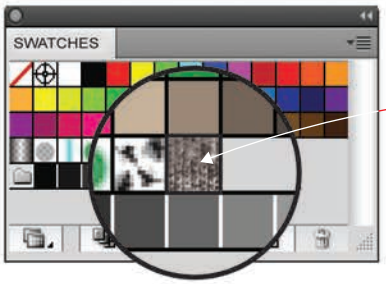
Selection Tool (V)
Rectangle Tool (M)

- Open the file with the Grey Marl Scan and select and copy the swatch **(Ctrl C/Cmd C)**
- Click onto **Chapter 4 Exercises** and paste the swatch into this file **(Ctrl V/Cmd V)**

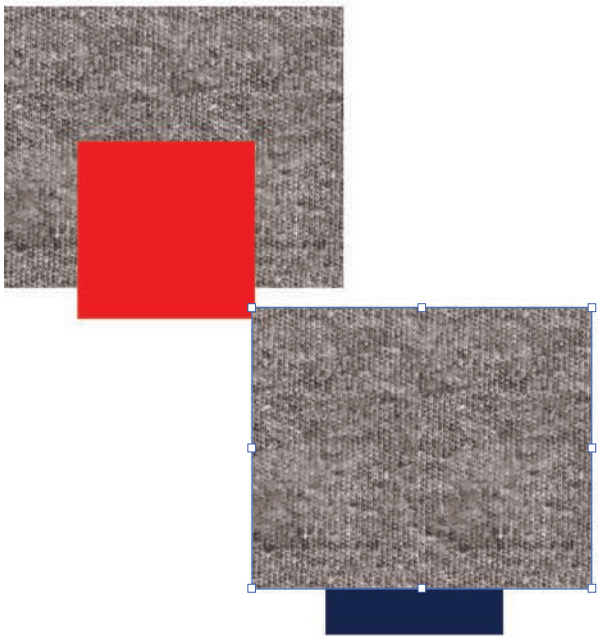
*It is very important to note the difference between **copy/paste** the swatch from one file to another and **placing** the file as we did on page 36. Both **copy/paste** and **place** are relevant in different situations. When you **place** a file in another file it is not embedded in the file and does not add to the destination file size. The file is still a separate file and is only visible in Adobe Illustrator; this file can still be edited in its original format and updated in the new file. This would be very useful if you were using a lot of different images on a mood board and only doing the layout in Adobe Illustrator. However, in this instance the image needs to be embedded in the file so we can create a pattern swatch with it, it needs to be part of this file.*



- Draw a square with the **Rectangle Tool (M)** over the top of the grey marl or plain fabric swatch: this is the pattern repeat boundary box
- Do not deselect
- Send the square to the back of the swatch **(Shift Ctrl [/Shift Cmd [)**
- Do not deselect
- Remove the colour from this square **(/)** ( )
- Click onto the **Selection Tool (V)** and deselect by clicking onto the work surface
- Marquee over the swatch and the transparent square behind the swatch and drag this into the **Swatches** panel



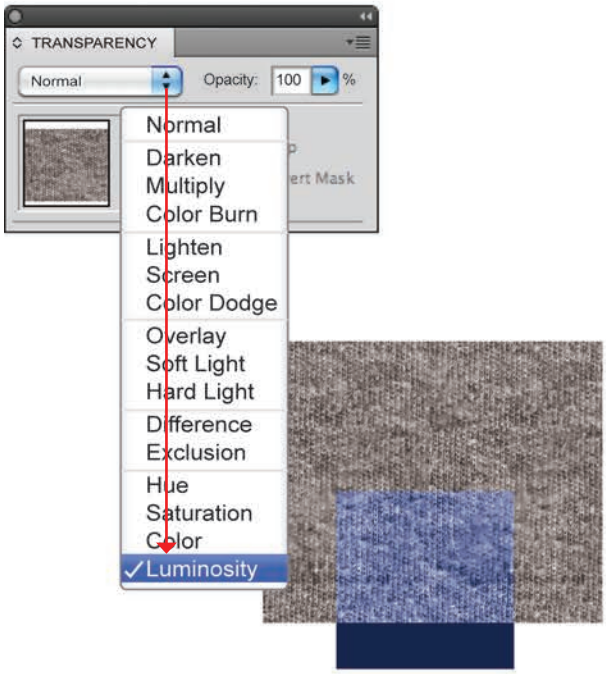
- Double-click onto the swatch and name it **Grey Marl**
- Select the front, back, neck and armhole bindings of the rib top and click onto the **Grey Marl Pattern swatch** to fill them with the scanned fabric



Change the Colour of a Scanned Fabric:

This method of changing the scan colour works best with a tonal fabric.

- Make a copy of the marl swatch and draw a rectangle over the top of the swatch. This time, however, you need to move it over the edge of the fabric and then send it to the back of the swatch **(Shift Ctrl [/Shift Cmd [)**
- Change the colour of the plain square to the colour the grey marl will change to, we have used navy
- Select the marl swatch and click onto to the Transparency panel ( ) in the panel docking station

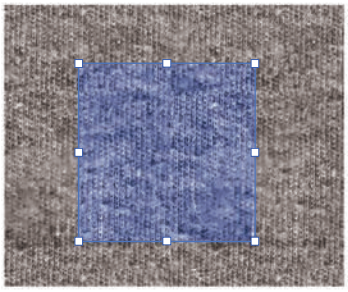


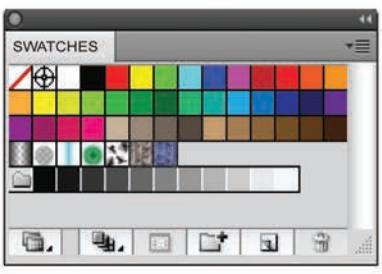
- Now click onto the box that has *'Normal'* in it, a drop-down menu will appear: this is where you can change the **Transparency** options

- Scroll down to 'Luminosity' and click onto this

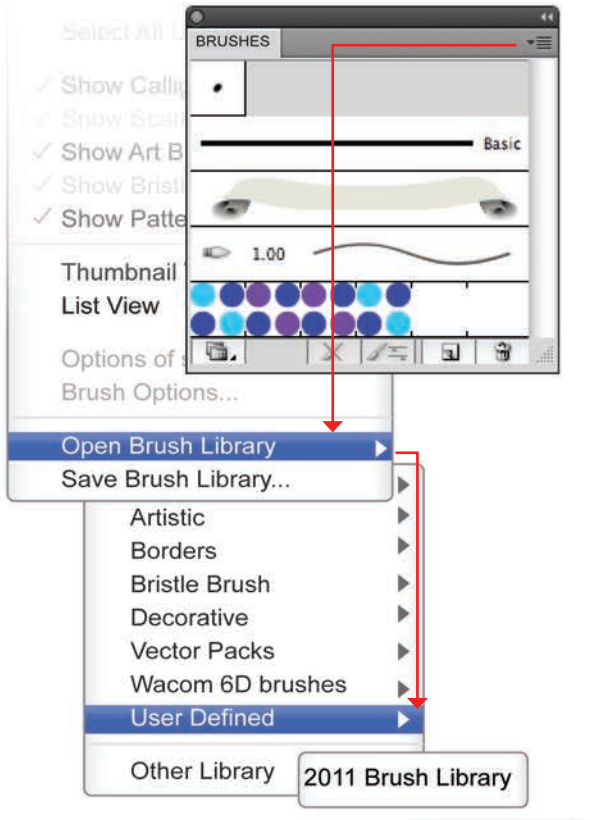
Luminosity: A luminous object reflects or emits light. When the Luminosity option is selected for an object it seems as if that object reflects the colour of the colour behind it. As you can see in the illustration where the navy swatch is the marl is blue and where there is no swatch it is still grey.

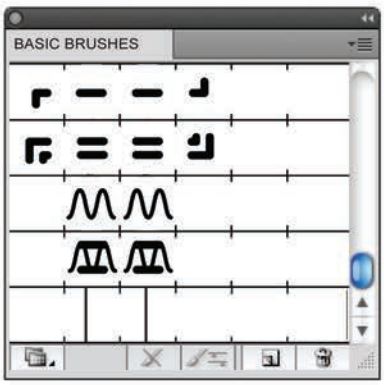
- Once you have established the colour of the marl, move the square back up behind the grey swatch
- Do not deselect the plain square as you will need to have a transparent boundary box at the very back of the marl swatch and square
- Copy the square once to the back **(Ctrl C/Cmd C and Ctrl B/Cmd B)**
- Remove the Fill and stroke from this square ( )
- Marquee over the swatch and drag it into the **Swatches Panel**
- Double-click onto the swatch and name it **Navy Marl**

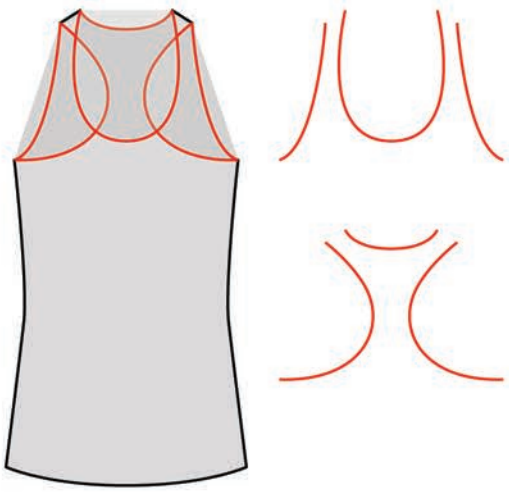




OPEN AN EXISTING BRUSH LIBRARY







2 Needle Cover Stitch: Open the Brush Library created in Chapter 3

- Click onto the down arrow in the **Brushes** panel
- Go to **Open Brush Library**

User defined

2011 Brush Library → **Basic Brushes**

- This will open up only the **Brushes** panel from the brushes file you created

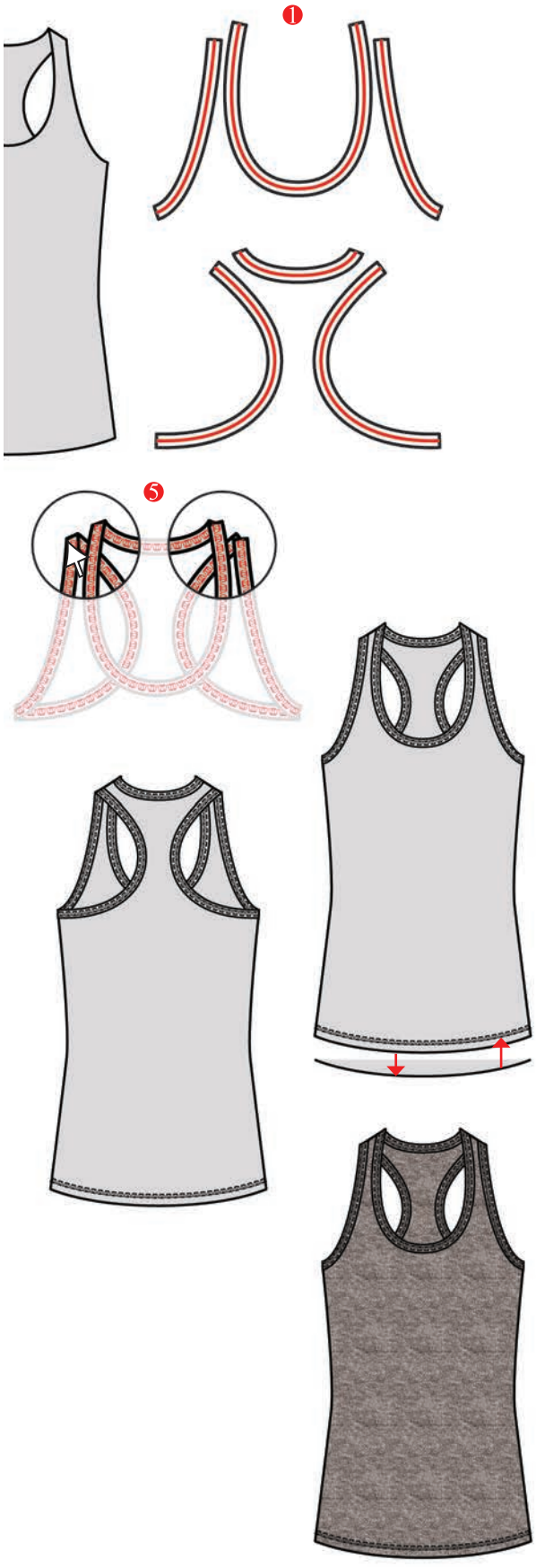
- Scroll down until the **2 Needle Cover Stitch** brush is visible and click onto that brush

*This will place the **2 Needle Cover Stitch** brush stroke into the **Brushes** panel of the current file . Check the palette to see if this has happened.*

Creating Binding: Copy the front and back neckline and armholes

Direct Selection Tool (A)

- Click onto the centre front neckline and centre back neckline points (▪) and copy the neckline to the front **Ctrl C/Cmd C** – to copy **Ctrl F/Cmd F** copies the lines to the front
- Do the same for the armholes
- Select the lines with the **Selection Tool (V)** and move them off the body using the keyboard arrows
- Remove the fill ( )
- Separate the front and the back lines



Create Binding: Stroke size and brushes

Selection Tool (V)
Direct Selection Tool (A)

1. Select the lines and go to **Object** in the menu bar → **Path** → **Offset Path...**
2. An option box will appear (ref page 50)
3. Type in the **Offset** amount (we have 0.75mm)
4. Check the **Preview** option to see if the offset amount is enough before you accept and select **OK**
5. Align the binding on top of each other and click onto the **Direct Selection Tool (A)** to adjust the front and back bindings to line up with each other and place a fill in the binding ( )
6. Do not delete the original neckline and armhole strokes
7. Select the original neckline and armhole strokes with the **Selection Tool (V)**
8. Change these lines to the **2 Needle Cover Stitch** from the **Brushes** panel and a stroke weight of **0.5mm**

- Place the binding on top of the garment
- **Group** the front body and binding **(Ctrl G/Cmd G)**
- **Group** the back body and binding **(Ctrl G/Cmd G)**
- Copy the hemline to the front **(Ctrl C/Cmd C, Ctrl F/Cmd F)** and move this up
- Remove the fill and change this to the coverstitch with the same stroke value as the binding cover stitch (0.5pt)
- Copy of the whole garment and select the front and **Send To Back (Shift Ctrl [/Shift Cmd [)**

Change the Fill Colour to Grey Marl Pattern Fill:

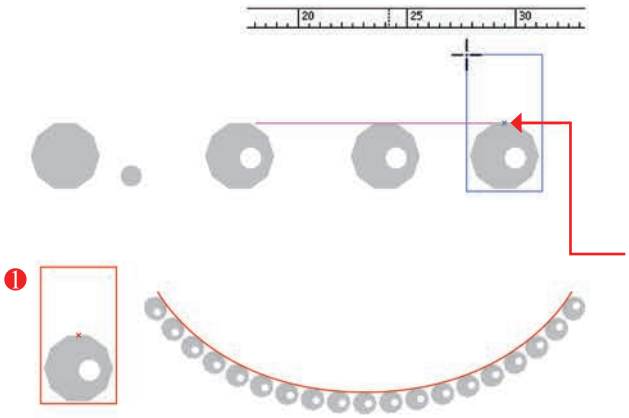
Group Selection Tool (No keyboard shortcut)

- Click onto the body with the **Group Selection Tool** (No keyboard shortcut) to select the fill colour ( )
- Go to **Select** in the menu bar and from the drop-down menu click onto **Select** → **Same Fill Color** to select everything in that colour
- Make sure the **Fill Box** is on top and select the **Grey Marl** from the **Swatches** panel ( )
- **Group** the front view and **Group** the back view **(Ctrl G/Cmd G)**

DIAMANTÉ TRIM

Create a Diamanté Trim Brush:

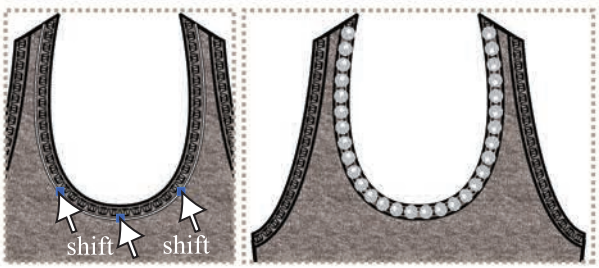
Polygon Tool (No keyboard shortcut)
Rectangle Tool (M)
Direct Selection Tool (A)



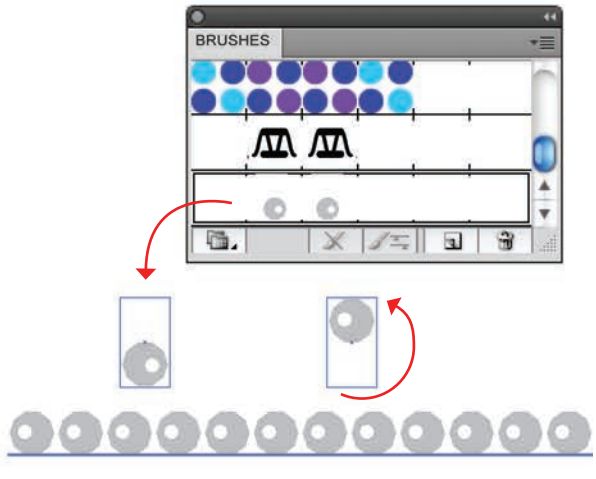
- Draw a Polygon **1mm Radius** and **10 Sides**
- Copy the polygone and scale it smaller to create a white highlight spot to place on the *'diamanté' (this is optional).* **Group** the two
- Drag a horizontal guide line from the top ruler to line up with the top of the polygon
- Click onto the **Rectangle Tool (M)** and draw a repeat boundary box over the polygon
- You will notice that the centre of the rectangle has a cross in it, line this cross up with the guide line, so that the polygon fits in one half of the rectangle
- Send the rectangle to the back and make it transparent. Select both the rectangle and the polygon and create a new brush (⬔)
- Follow the instructions for a new brush (ref Ch 3)

Take note: the diamanté trim sits off centre of the boundary repeat box as it sits below the neck binding. The centre of the height of the repeat in a brush is lined up with the stroke when placed in a line. Note the red line and the boundary box in example ❶ *and example* ❷.

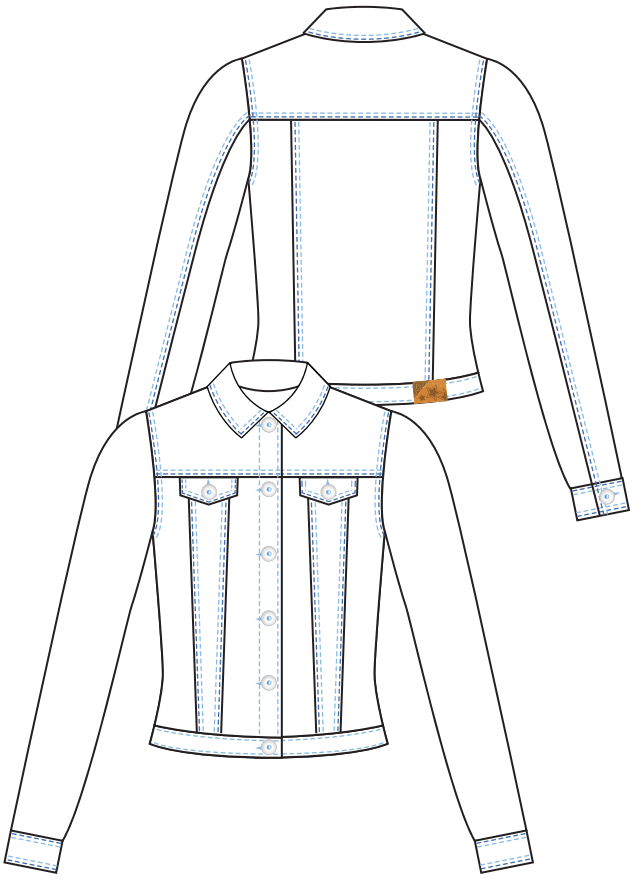
- Click onto the **Direct Selection Tool (A)** and select the edge of the binding against the body of the garment by selecting each **anchor point**, remember to hold down **Shift** when picking up multiple **anchor points**



- Copy this to the front **(Ctrl C/Cmd C** and **Ctrl F/ Cmd F)** and remove the fill **(/)**
- Select the copied line and click onto the new diamanté brush. It may sit on the wrong side of the line. If this is the case you will have to drag the brush out of the library and rotate it 180° and re–load it into the **Brushes** panel again



TWO-COLOUR TOP STITCH BRUSH



Jacket – Components:

1. **Two-colour one-way brush**

2. **Stud Button – changing gradient colours**

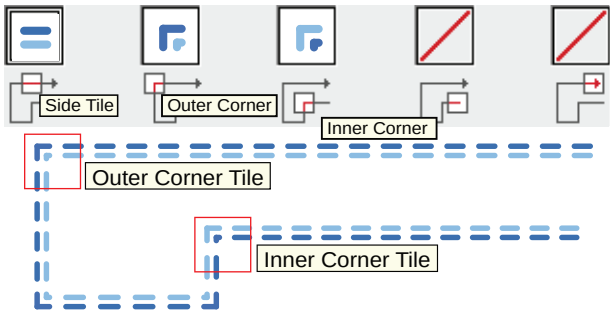
3. **Printed and embroidered leather badge**

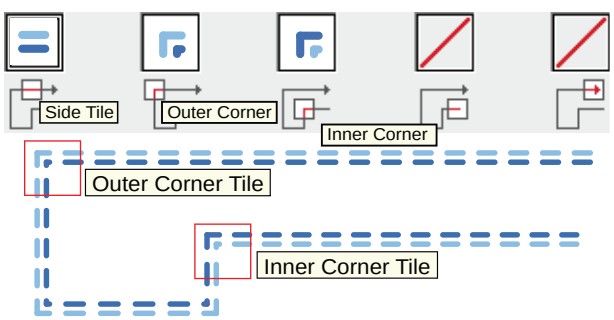
Creating a Two-colour Top Stitch Brush:

Rectangle Tool (M)
Line Segment Tool (\)
Group Selection Tool (No keyboard shortcut)

❶

❷



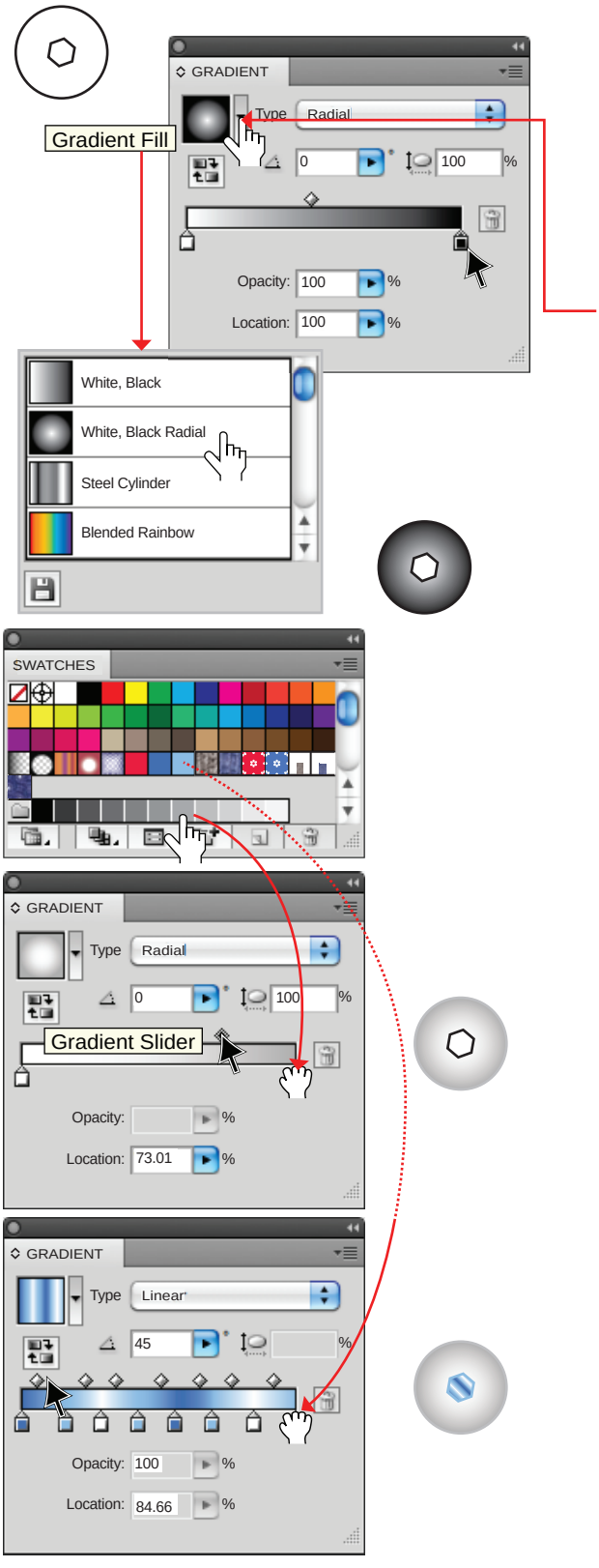


❶ Create the two-colour **2 Needle** brush:

- Open the Basic Brushes library (ref page 112) and drag the **2 Needle Top Stitch** brush out of the **Brushes** panel
- Change the stitch colours to the two blues
- You will need two corner tiles, an **Inner Corner** tile and an **Outer Corner** tile. Both need to be placed in the swatches panel in the same direction as the example ( )
- Note the order of colours: The **Outer Corner** follows the top colour of the **Side Tile** and the **Inner Corner** follows the bottom colour of the **Side Tile**
- Copy and rotate the side panel 180°, you have all the components to create both brushes (ref page 91 for a one–way brush)

❷ Select the whole image and create a new **Pattern Brush**

- Because this is a one-way brush you will have to create the mirror version of it. Select the rotated **Side Tile** and create a new brush swapping the **Inner** and **Outer Corner Tiles**



Stud Button – Changing gradient colours:

Ellipse Tool (L)
Polygon Tool (No keyboard shortcut)
Selection Tool (V)

1. The stud button is made up of a circle with a **Radial Gradient** and a polygon filled with a **Linear Gradient** on top of each other, you can use the button you created for this jacket in Chapter 3, page 83
2. Select the circle and fill it with with a **Radial Gradient:**

- Click onto the Gradient icon in the docked panels ( ) to reveal the options
- Click onto the arrow next to the gradient swatch in the the panel to reveal a list of gradient swatch options
- Select a *Radial* gradient with 2 colours

3. Change the colour of the gradient:

- You can only change the colour of the gradient if you have the circle selected

*It is best to have the **Gradient** panel and the **Swatches** panel both open to do this operation.*

- Click the cursor on the new colour in the **Swatches** panel and drag it onto the colour you want to replace in the **Gradient** panel
- Adjust the location of the **Gradient Slider** for more or less white to show. Place a similar colour in the stroke ( )

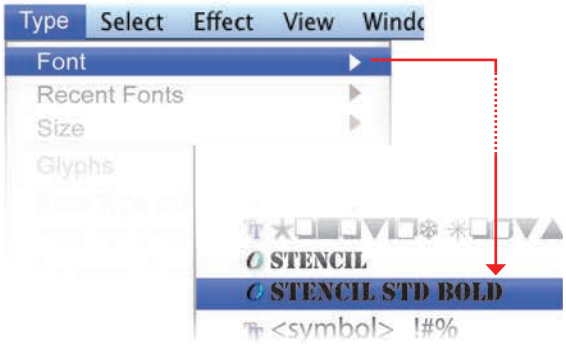
4. Select the polygon and fill it with a **Linear Gradient** from the **Gradient** panel options:

- Change the colour of the gradient by selecting the colours you want from the **Swatches** panel and then drag them below the gradient slider ( )
- The distribution of colour in the gradient can be varied by moving the colour blocks under the colour bar to the left or right
- The intensity of the division between the colours can be varied by moving the diamond on top of the colour bar and the colour blocks closer together or further apart
- The angle of the linear gradient can be changed by typing the degree of the angle into the **Gradient** option box, we have 45°
- Colours can also be removed by placing the cursor onto that colour and dragging it off the colour bar

Printed and Embroidered Leather Badge: Masking objects and create outlines with Type

Rectangle Tool (M)
Star Tool (No keyboard shortcut)
Selection Tool (V)
Type Tool (T)
Eyedropper Tool (I)

1. Draw a rectangle 60mm x 40mm
2. Create the design to go onto the badge with the **Shape Tools**. Type the logo and choose a font from the font list



- Once you are happy with the size and position of the word it should be turned into an **Outline**
- Go to **Type** in the **Menu Bar**

↓

Create Outlines

- Place a stroke only in the word and make the stroke a **Dashed Line** (ref page 50) to represent saddle stitch embroidery

*Changing the word from a **Font** to an **Outline** enables the word to be read as a **vector** image and not a font (fonts are unique to the computer you are working on and may not be available on another computer). This needs to be done when supplying a soft copy of finished art to manufacturers.*

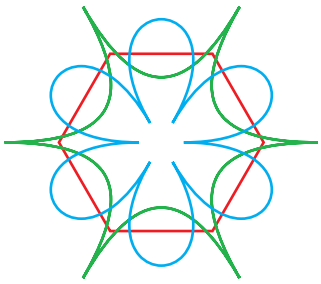
3. Select the rectangle and **Offset Path** (ref page 50). We have used -1mm in this example. Bring this rectangle to the front and **Eyedrop** (I) the dashed line properties of the lettering to represent the stitching
4. Select the rectangle, copy it to the front and bring it all the way to the front **(Shift Ctrl]/Shift Cmd])**

- Marquee over the whole image to select it and mask the images with the transparent rectangle on top
- Go to **Object** in the Menu Bar

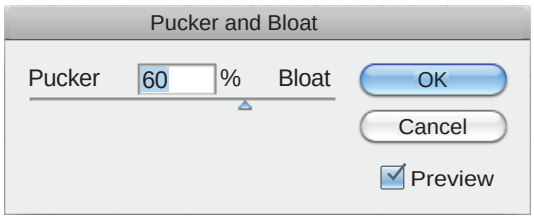
↓

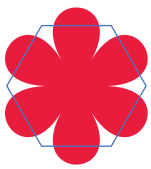
Clipping Mask → **Make (Ctrl 7/Cmd 7)**

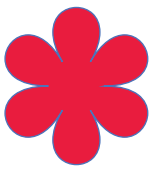
DISTORT TOOL AND FLOWER PATTERN FILL



Original Polygon
Pucker
Bloat

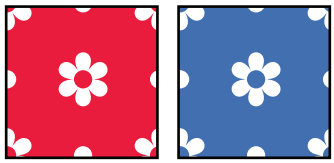




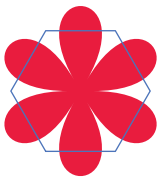


X-Over Top – Components:

1. **Spot flower repeat and alternative colour**



2. **Create a flower with Pucker and Bloat**



3. **Pencil Tool**

Spot Flower Pattern Fill: Creating a simple spot, flower pattern repeat with the pucker and bloat effect

Polygon Tool (No keyboard shortcut)
Ellipse Tool (A)
Selection Tool (V)

1. **Creating a six-petal flower with the Pucker and Bloat Tool:**

- Create a six-sided **Polygon** with a radius of 6mm (ref page 11). Do not deselect the **Polygon**
- Go to **Effect** in the menu bar

↓

Distort and Transform ⟶ Pucker and Bloat

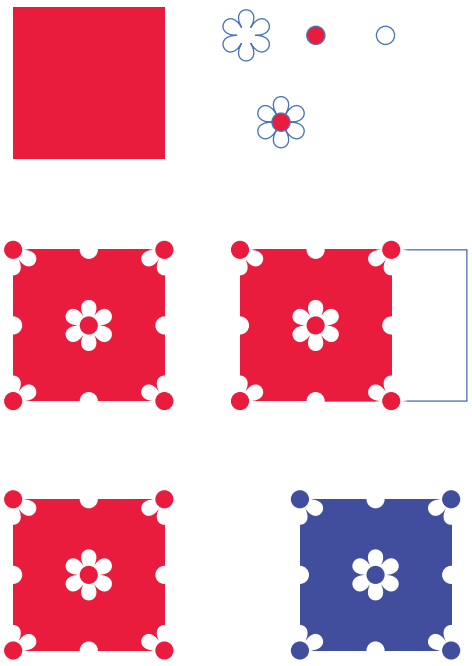
- Move the arrow to the right, to **Bloat** the polygon

Bloat: *Pulls the polygon's anchor points inward while curving the sides outward, creating a flower shape.*
Pucker: *Pulls the polygon's anchor points outward while curving the sides inward, creating a star shape. Both options pull the anchor points relative to the polygon's centre point.*

- At this stage you cannot edit the shape of the flower at all
- To edit the flower it must be expanded
- Go to **Object** in the menu bar and

↓

Expand Appearence

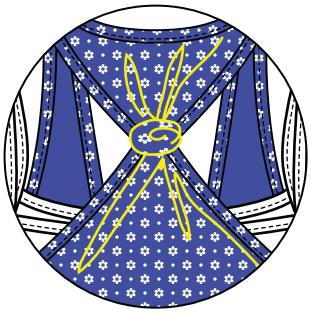


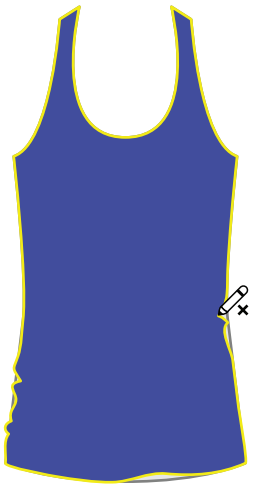
2. Draw the balance of the components:

- Create a **1mm** radius circle with the **Ellipse Tool (L)** with a red fill ( ) and copy it once as in the illustration and change the fill to white ( )
- Create a **20mm** square with the **Rectangle Tool (M)**
- **Horizontal Align Centre** and **Vertical Align Centre** the spot and flower and group them
- Place a flower on each corner of the square and one in the centre following the instructions on page 75
- Place a white spot between two flowers on the edge of the boundary box. The **Keyboard Increment** is still 10mm, now copy the second spot from top to bottom and left to right
- The design is complete
- Copy the boundary box to the back, make it transparent and place the swatch in the **Swatches** Panel to create a new **Pattern** swatch
- Create a second colour of the **Pattern** swatch

Pencil Tool:

Pencil Tool (N)



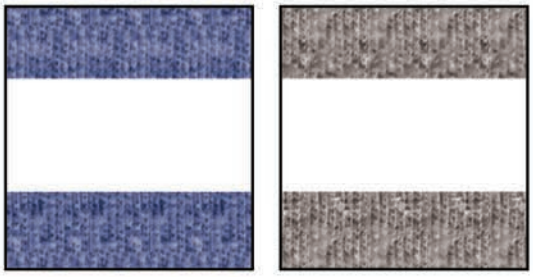


- The **Pencil Tool** allows you draw open and closed paths as if drawing with a pencil on paper. It is most useful for creating a hand-drawn look
- **Anchor Points** are set down as you draw with the **Pencil Tool** and their position cannot be determined. However, they can be adjusted once the path is complete by using the **Pen Tool** options to do this (adding or deleting **Anchor Points**) or leave the line selected and draw over the area that needs adjusting again with the **Pencil Tool**
- The number of anchor points set down is determined by the length and complexity of the line drawn. Double-clicking on the **Pencil Tool** in the **Toolbox** brings up a dialogue box in which the tolerances can be set. These settings control how sensitive the **Pencil Tool** is to the movement of your mouse or graphics-tablet stylus
- In this garment the **Pencil Tool** has been used to create the gathering into the knot at the back
- To change a previously drawn line:
  First select the line that you would like to change and then click onto the **Pencil Tool (N)**
- Draw over the selected line being careful when starting to rest the point of the **Pencil Tool** on the selected line

CREATING A PATTERN WITH A SCANNED IMAGE

Yarn-dyed Stripe Top – Components:

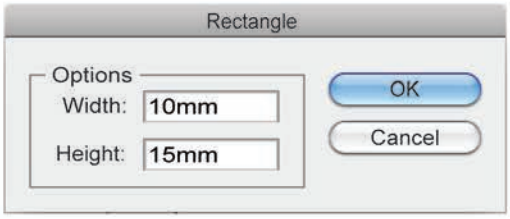
1. **Stripe repeat with a scanned fabric**



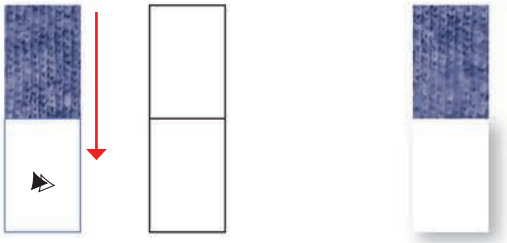
2. **Rotate stripe pattern in the garment**

Creating a Stripe Repeat with a Scanned Fabric:

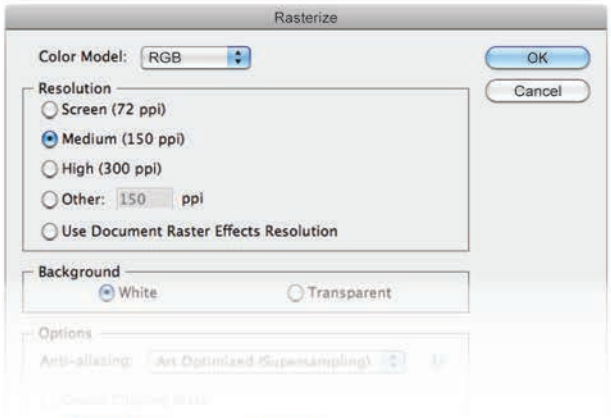
Rectangle Tool (M)
Selection Tool (V)

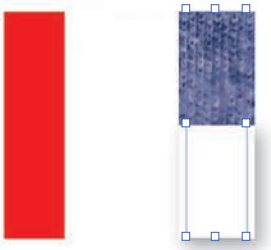


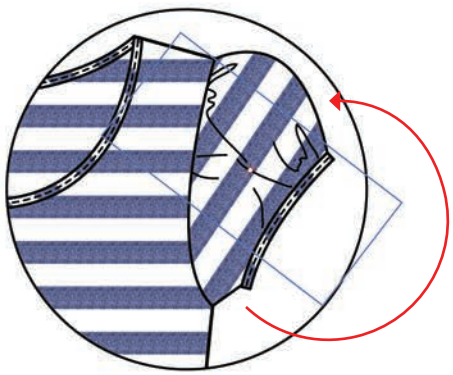
1. Select the **Rectangle Tool (M)** in the **Tool Box** and click onto the work area to bring up the dialogue box
- Create a rectangle 10mm x 15mm
- Fill this with the scanned navy marl ( )



2. Copy this rectangle vertically down using the **Alt** key ( ) and the keyboard arrows ( ) with a **Keyboard Increment** of **15mm**
- Change the colour to a white fill ( )
- Go into **Outline** view **(Ctrl Y/Cmd Y)** to check that the two rectangles are aligned (ref page 52)
- Go back to **Preview** view **(Ctrl Y/Cmd Y)**







3. **Rasterize** the scanned fabric rectangle:
- Select the rectangle with the scanned swatch in it
- Go to **Object** in the Menu Bar

↓

Rasterize

- A dialogue box will appear
- The **Color Model** will be the same as the file colour model (**RGB**)
- Select **Medium (150 ppi)**
- **Transparent Background, OK**
- **Group** the two rectangles **(Ctrl G/Cmd G)**

4. Create another **Rectangle** (8mm x 30mm)
- **Horizontal** and **Vertical Centre Align** (,) this with the two stripes, remove the colour fill and send this to the back **(Shift Ctrl [/Shift Cmd [)**

***Rasterize** – When a **vector** image is **Rasterized** it is converted into a **bitmap** image (ref page 2).*
*A pattern fill cannot be made with a pattern swatch from the **Swatches** palette because the pattern swatch has already been processed.*
***Rasterizing** the image simplifies it and allows the program to see the image as a shape not a pattern swatch.*

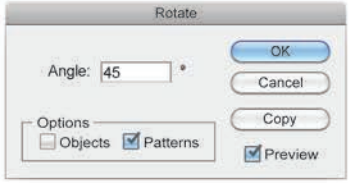
5. Marquee over the whole repeat and drag it into the **Swatches** palette

Rotating the Stripe:

Group Selection Tool (No keyboard shortcut)
Rotate Tool (R)

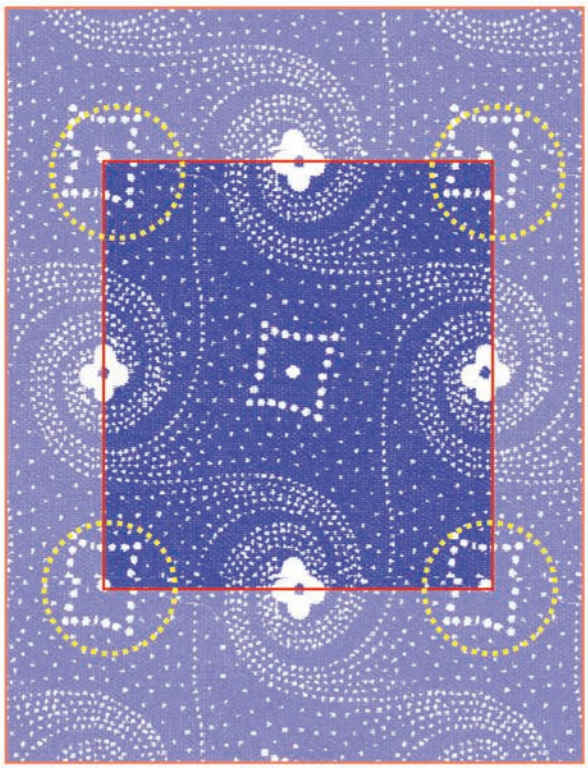
- There are two options to **Rotate** the stripe pattern fill

1. The binding will be cut on the bias or at an angle of 45°, so the rotate pattern option will be best for this (ref page 72)



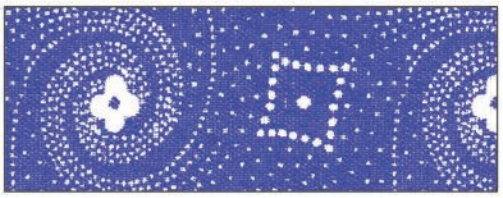
2. The sleeve needs more flexibility in the rotation so it will be easier to use the **Rotate Tool (R)** and the **Tilda (~)** key (ref page 72)
- Scale the stripe repeat (ref page 72)

PATTERN REPEAT IN A SCANNED FABRIC



Skirt – Components:

1. **Scanned fabric swatch fill**



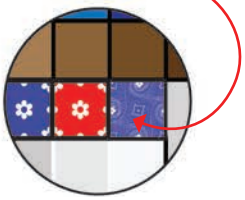
2. **Embroidered hem brush detail**

3. **Rouleau Tie**

Scanned Fabric:

Selection Tool (V)
Rectangle Tool (M)

- Scan in a printed fabric and save as a JPEG or TIFF file onto your hard drive (ref page 109)
  Hard Drive
  → **Adobe Illustrator Exercises**
  → **Blue Print Scan**
- Open the fabric scan in Adobe Illustrator, select the scan and copy and paste it into the file you are currently working in
- Establish a repeat of the print as well as you can
- The yellow dotted circles show the four corners of the repeat
- Draw a rectangle over the repeat
- Remove all colour from the rectangle ( )
- Send the rectangle/*repeat boundary box* to the back **(Shift Ctrl [/Shift Cmd [)**
- Select the scan and the boundary box with the **Selection Tool (V)** and drag it into the **Swatches** panel to create the pattern fill



Embroidered Hem Pattern Brush:

Rectangle Tool (M)
Ellipse Tool (P)
Selection Tool (A)
Rotate Tool (R)

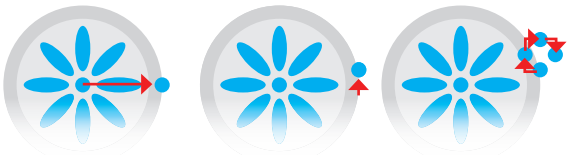
1. Draw the components for the design
   a: An **Ellipse** 2.1mm x 2.1mm with fill only
   b: An **Ellipse** 1.75mm x 1.75mm with fill only
   c: An **Ellipse** 0.2mm x 0.2mm
   d: Create a petal with the **Ellipse Tool (L)** 2mm x 6mm
2. **Horizontal** and **Vertical Centre Align** the three circles on top of each other. **Horizontal Align** the petal in the centre of the circle, as in the illustration

3. Create the flower motif:
- Select the petal and go into **Outline View (Ctrl Y/Cmd Y)**. Click onto the **Rotate Tool (R)** and drag the rotate fulcrum to line up with the centre of the ellipse, start to rotate and copy the petal 45° (ref page 17). Do this once and **Transform Again (Ctrl D/Cmd D)** to create the rest of the petals

Transform Again *is a right-click function and will perform the exact last sequence of actions you have just done –* **Rotate Tool***; hold* **Alt** *to copy and hold* **Shift** *to move the petal 45° to the right.*

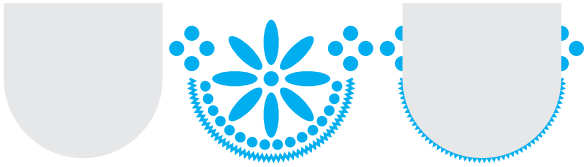
- Go back to Preview **(Ctrl Y/Cmd Y)**

4. Create the spot motif:
- Change the **Keyboard Increment** to 1.05mm (half the large circles size) and copy the centre ellipse once to the right
- Change the **Keyboard Increment** to 2mm and move the spot up once. Copy the spot into an offset design using the 2mm increment



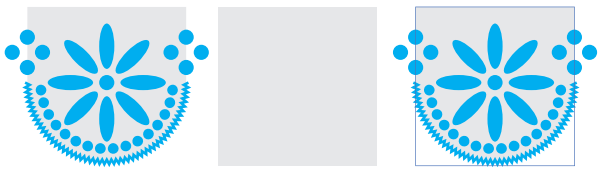
5. Delete the anchor points at the top of the circles, to leave half a circle only
6. Select the two half circles behind the flower:
7. Remove the fill and place a blue stroke with a stroke weight of 0.1pt ( )
8. Copy the larger circle to the right; remember to use the **Alt** key and the **Direction Arrows**
9. Create a rectangle with a width of 2.1mm and a length of 1mm
10. Line up the rectangle you have just created with the half circle and select both the half circle and the rectangle

11. Click onto the **Unite** option under the **Shape Modes** in the **Pathfinder** panel () to create one shape
12. In the outer circle place a **zig zag**. **Size**: 0.03 and **Ridges**: 52 per segment (ref page 88)
13. In the inner circle place the spot brush you created in Chapter 3 (ref page 90). Group the flower, spot motif and the zig zag and spot lines together
14. Move these over until they sit in line with the half circle-rectangle shape

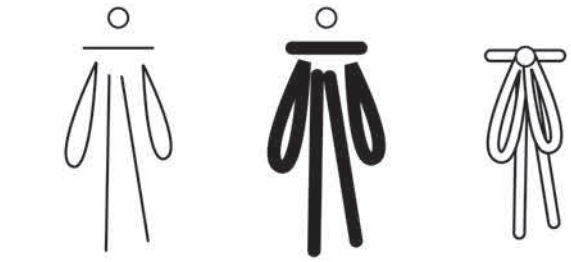


15. Send the shape to the back **(Shift Ctrl [/Shift Cmd])**. **Group** everything
16. Draw a **Rectangle (M)** 2.1mm x 2.1mm
- Align this rectangle with the corner of the brush pattern, as represented in the illustration
- Send this rectangle to the back **(Shift Ctrl [/Cmd Ctrl [)**

17. Create a **New Brush** ( ) in the **Brushes** panel ( )



WAIST TIE AND SCALE A SCANNED PATTERN



Waist Tie and Pattern Fill:

1. Draw the waist tie:
- Using the **Pen Tool (P)** draw all the components of the waist tie; the two loops; the two ends of the tie and the knot (you can use the ellipse to create this) These should be drawn with a stroke only ( )
- Select the lines (not the knot) and make the *Stroke Weight* heavier 3pt or 4pt depending how thick you want your tie to be. We have selected **Round Cap**

2. Outline Stroke:
- Go to **Object** in the menu bar

Path → **Outline Stroke**

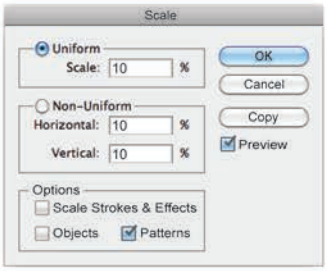
- Move all the components into place and make them the default stroke and fill ( )

3. Expand the Broderie Anglaise brush so you can edit the colours in it (ref page 96)

The reason you need to expand the brush is to be able to fill the background colour with a pattern swatch. You cannot create a brush with a pattern fill in any part of the brush.

4. Select the skirt fill colour and change this to the pattern fill
- Do the same with the grey colour of the **Embroidered Hem** brush. You can also change the embroidered motifs to a suitable colour; we have chosen white

5. Now select all the pattern fill and scale the size of the repeat. We have scaled this design to 10%



Sometimes a pattern fill may not scale. This could happen with complex vector repeats or, as we have found, with scanned fabrics. The way we remedy this is to put a simple repeat into the style first, like the first simple offset spot you created ( ). We scale this pattern and then choose the scanned fabric as a fill.

!REMEMBER!
Zoom For Details

Second Colour of the Skirt:

1. Copy the skirt:

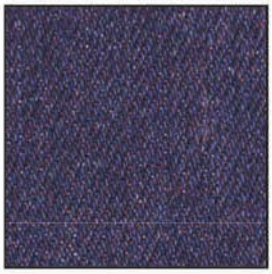
The skirt will be changed to white. You will need to put a substitute colour in first as the embroidery on the original skirt is white.

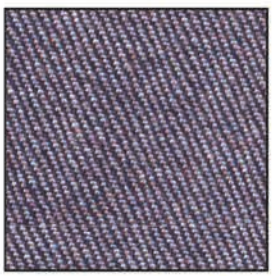
- Select the pattern fill colour by clicking onto **Select** in the menu bar
  ↓
  Same → **Fill Color** and change this to another colour, not white
- Select the **Embroidered Hem** white motifs and change the colour to a colour that matches the story, we have selected cobalt
- You can select the substitute skirt colour and change this to white

Change the Colour of the Scanned Fabric:

It is possible to change the colour of a scanned fabric in Illustrator, but this works best with a tonal or simple two-colour fabric as the one in our example and as you have already seen with the grey marl.

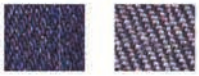
1. Drag the original swatch out of the **Swatches** panel
2. **Ungroup (Shift Ctrl G/Shift Cmd G)** the swatch to separate the 'pattern repeat rectangle' (ref page 122) and the scanned fabric
3. Move the scanned fabric aside and select the repeat rectangle with the **Selection Tool (V)** and change the colour of the rectangle
4. Move the scanned fabric back on top of the rectangle leaving part of it exposed so you can experiment with the **Transparency** panel (ref page 111). We have used *'Lighten'* here
5. Once you are happy with the colour, copy the repeat rectangle to the back **(Ctrl C/Cmd C** and **Ctrl B/ Cmd B)**, remove all colour from this rectangle as this is the repeat boundary box
6. Move the scanned fabric back on top of the rectangle lining it up with the repeat and drag the fabric and two repeat rectangles back into the **Swatches** panel





Shorts – Components:

1. **Denim Scan**



2. **Wash Treatment and Transparency Panel**

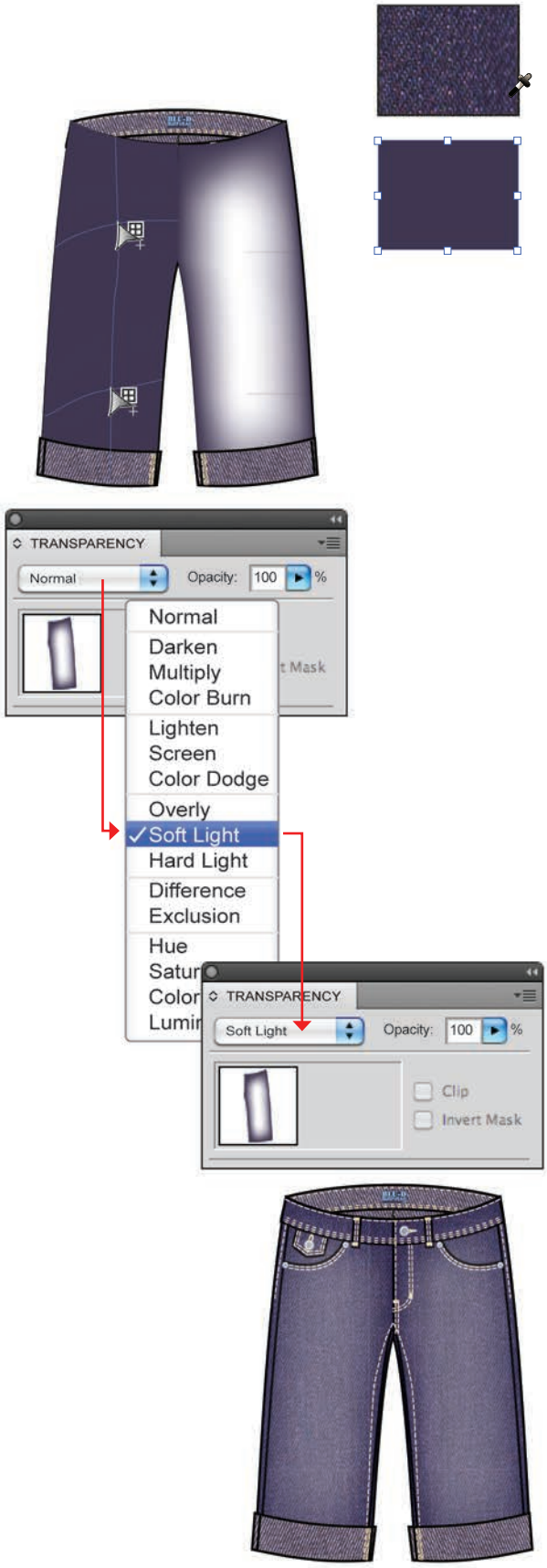
Scan the Denim:

- Scan in the denim and save as a JPEG or TIFF file onto your **Hard Drive**
  - → **Adobe Illustrator Exercises**
    - → **Denim Scan Face**
    - → and **Denim Scan Reverse**

- Please note all scanners are different and there are two points to consider:
  1. Scan the image at 200 dpi (dots per inch)
  2. Scan this image in colour

  For all other instructions follow the scanner instructions

- If your scanner allows, crop the image to about 5cm x 5cm before scanning
- Open the scanned denim files and copy and paste each denim into the file you are working in
- Create a Pattern swatch with each
- Fill the shorts with the scanned fabric as illustrated using the reverse pattern swatch for the turnback



Wash Treatment – Transparency Panel:

Group Selection Tool (No keyboard shortcut)
Eyedropper Tool (I)
Mesh Tool (U)

1. Drag the denim scan from the Swatches panel. Draw a square and keep this selected, rest the **Eyedropper Tool (I)** on the scan, moving it around to find a suitable plain colour

*The denim that you **Eyedrop** must be the original scan not a **Pattern Fill**, as the pattern fill is now read as a colour when you place the **Eyedropper** on it.*

- Create a new swatch
- Select both front legs of the shorts with the **Group Selection Tool** and copy them to the front **Ctrl C/Cmd C** and **Ctrl F/Cmd F**
- Fill this shape with the plain colour you have just created and then deselect the front legs

2. Click onto the **Mesh Tool (U)**

- Change the colour in the fill box to white ( )

The colour in the stroke box is of no consequence with this tool.

- Click onto the plain front leg (see the left leg in the illustration) to add what will become the sanded or washed treatment (see the right leg in the illustration)

*Note: using the **Mesh Tool** in this way works best with a simple shape (in Chapter 5 we will demonstrate what to do with more complex shapes).*

Transparency Panel:

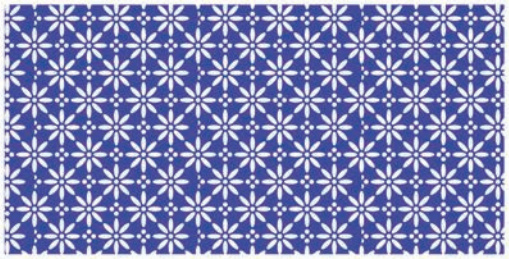
- The **Transparency** ( ) panel has a number of options. We would strongly encourage you to experiment with this palette as the results vary with the colours and finish you would like to depict
- When you open the **Transparency** panel the selected shape will appear as a thumbnail
- The default **Transparency** setting is normal
- Click onto the down arrow to reveal the **Transparency** options
- Select **Soft Light** to achieve the same finish as the illustration

BRODERIE ANGLAISE PATTERN AND BRUSH

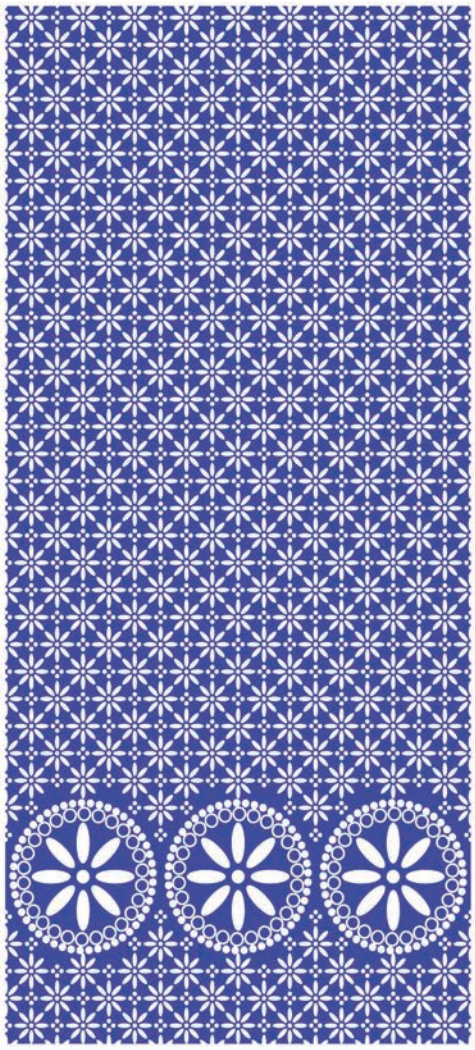
Dress – Components:

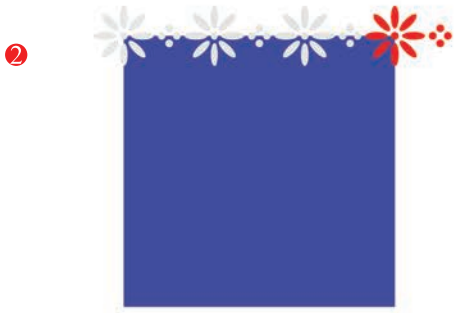
1. **Broderie Anglaise Pattern Brush**

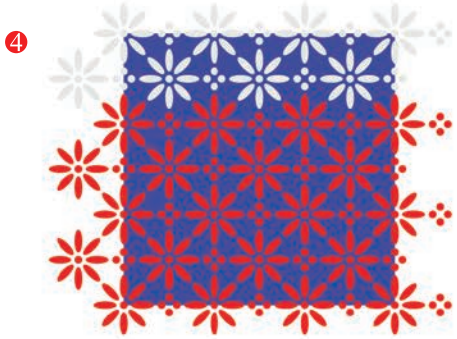
2. **Broderie Anglaise Pattern Swatch**

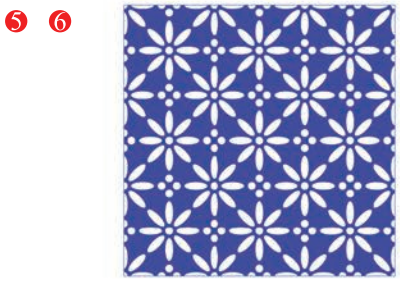


3. **Broderie Anglaise Border Pattern Brush**









Broderie Anglaise Pattern Swatch:

Selection Tool (V)
Rectangle Tool (M)
Ellipse Tool (L)

❶ Use the components from the **Embroidered Hem Brush:**

- Drag the pattern out of the **Brushes** panel
- Zoom in to the design and ungroup and delete everything except the flower motif and the four-dot eyelet motif. Group the flower motif and group the dot motif – they must be two separate groups
- **Vertical** ( ) and **Horizontal Align Centre** ( ) the dot motif and flower motif
- Set the **Keyboard Increment** to **1.2mm** and move the dot motif to the right
- Group both the dot and flower motif together

❷ Create the repeat boundary box for the **Broderie Anglaise** swatch

- Click onto the **Rectangle Tool (M)** and create a rectangle **7.2mm** x **7.2mm**
- Place the first flower/dot motif on the corner of the repeat box
- Set the **Keyboard Increment** to **2.4mm** and copy them three times to the right

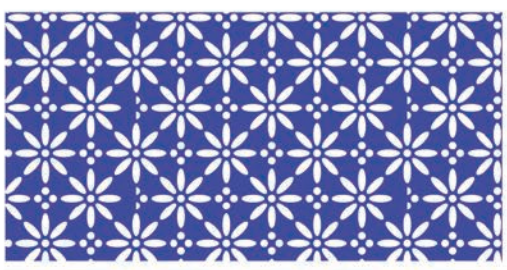
❸ Select the whole line and group it, do not deselect

- Set the **Keyboard Increment** to **1.2mm** and copy the line down (▼) and move it to the left (◀)

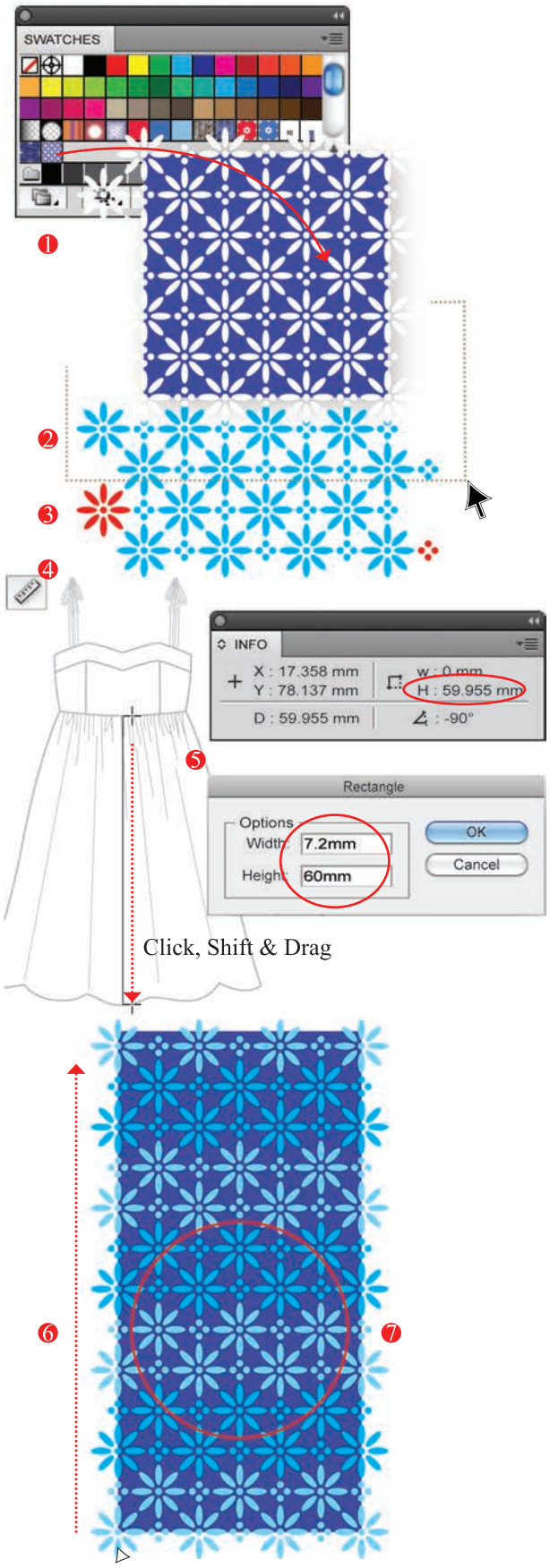
❹ Repeat the process moving the line alternately to the left (◀) and the right (▶) until the bottom of the square has a row of flowers

❺ Change the colours to blue and white. Copy the boundary box once to the back, remove both the stroke and fill ( ). Select the whole design and drag it into the **Swatches** panel

❻ The pattern repeat can now be used to establish the **Broderie Anglaise Border** brush



BRODERIE ANGLAISE PATTERN FILL



Broderie Anglaise Border Pattern Brush:

Selection Tool (V)
Group Selection Tool (No keyboard shortcut)
Measure Tool (No keyboard shortcut)
Rectangle Tool (M)
Ellipse Tool (L)

❶ Drag the **Broderie Pattern** swatch from the **Swatches** panel
❷ **Ungroup** it **(Shift Ctrl G/Shift Cmd G)** and select two lines of motifs and delete everything else
❸ Delete the two motifs in red (as illustrated) and group each line separately and then together **(Ctrl G/Cmd G)** this line of motifs
❹ Work out the length of the rectangle for the repeat boundary box in the border brush

Remember that the closer the size of the brush to the finished drawing size the better the result will be. In this style we will use the border design in the skirt only so we need to know the length of the skirt.

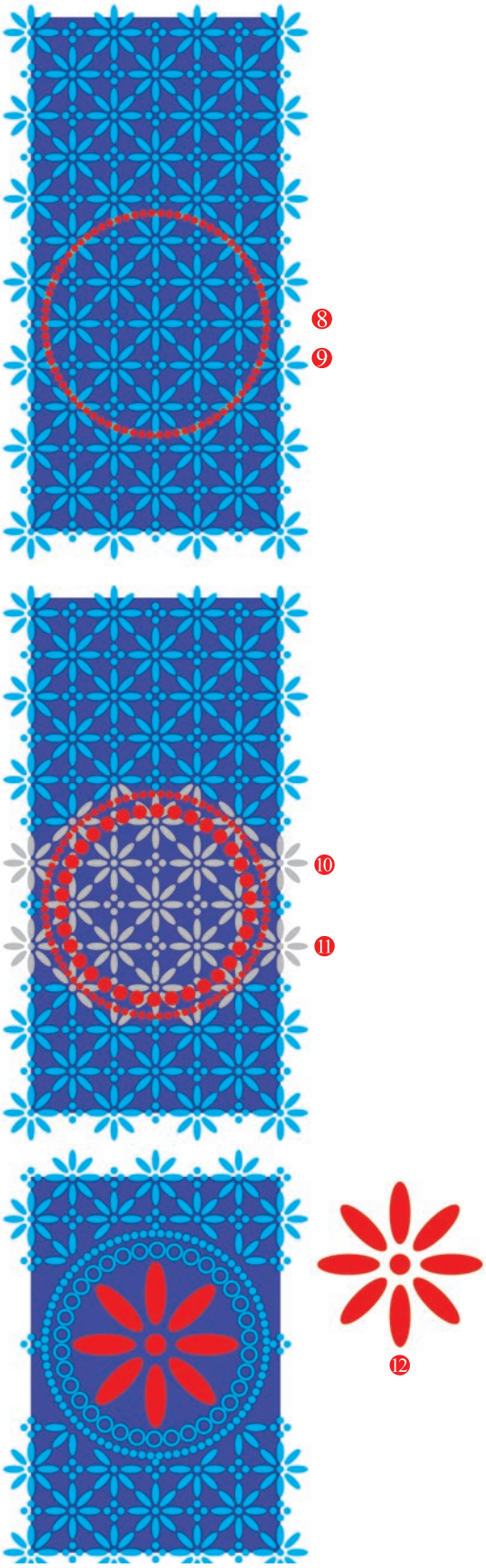
- Select the **Measure Tool**, click onto the waist of the skirt and hold the mouse down and drag the cursor towards the hem, holding Shift at the same time to move the cursor in a straight line. You will notice once you start to do this the **Info** panel will pop up (ref page 8)
- The measurement you require will be the '**H**' or *Height*, which is nearly 60mm in this instance

❺ Create a rectangle **7.2mm** x **60mm**

❻ Line the two rows of motifs up with the bottom of the rectangle

- Set the **Keyboard Increment** to **2.4mm** and copy the two rows all the way to the top of the rectangle, hold down the **Alt** key to copy and tap the up (▲) each time you need to make another copy

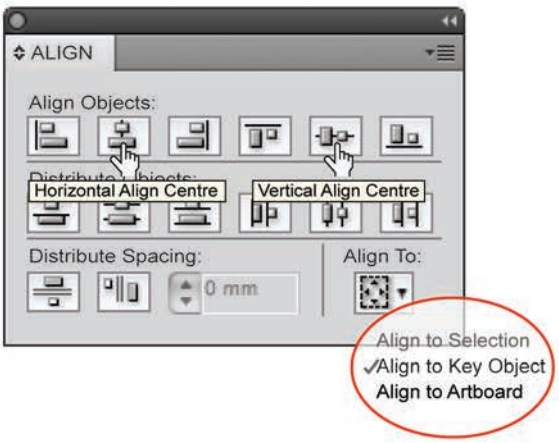
❼ Draw an **Ellipses (L) 6.4mm x 6.4mm** and place it in the centre of the rectangle three rows of flowers up from the bottom
❽ Select the circle only and place the spot brush you created earlier into this (ref page 90), change the stroke size to **0.25pt**



Broderie Anglaise Border Pattern Brush (cont'd):

9 To centre the circle without disrupting the alignment of the whole design it is important to *align the circle to a key object*. We have selected the boundary rectangle as the *'Key Object'*

- Select the circle, hold the **Shift** key and select the boundary rectangle, release the **Shift** key
- Open the **Align** panel ( ) and go to the right corner of the panel to select the **Align to Key Object** option
- Now click onto the boundary rectangle and you will notice a thicker selection highlight appear. You can now **Horizontal Align Centre** ( ) the circle to the boundary rectangle



10 Click onto the **Group Selection Tool** select and remove all the motifs from the centre of the circle and partly from outside the circle as illustrated with the grey highlighted area

11 Scale and copy the circle: we have made it **85%** of the original circle with a **Stroke Weight** of **0.4pt**

- Select the circles
- Go to **Object** in the menu bar

Path → **Outline Stroke**

- Both circles can now be edited (ref page 96)
- We have made the inner circle a stroke **0.25pt**, not a fill

12 Select one flower motif and scale it to **300%** and place it in the centre of the inner circle:

- To centre the flower without disrupting the alignment of the whole design it is important to *align the flower to a key object*. We have selected the circle around the flower as the key object
- Select the flower motif, hold the **Shift** key and select the inner circle, release the **Shift** key
- Align the flower motif to the inner circle

BRODERIE ANGLAISE PATTERN BRUSH

Broderie Anglaise Border Pattern Brush (cont'd):

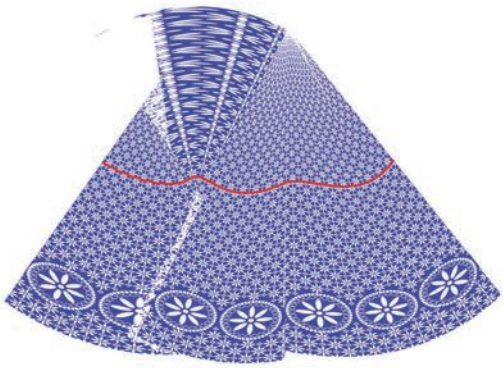
13. Select the boundary rectangle and copy it to the back **(Ctrl C/Cmd C, Ctrl B/Cmd B)**. Remove the fill from the rectangle ( )
14. Select the whole image and click onto the **New Brush** icon ( )

- Select **New Pattern Brush**
- Click onto **OK**
- A dialogue box will appear with the brush in the first tile
- Name the new brush: **Broderie Anglaise**
- Leave the **Scale** at **100%**
- Leave the **Spacing** at **0%**
- Click onto **Stretch to fit ( )**
- Leave the ***'Colorization'*** **Method** on the default **None** option and select **OK**

Broderie Anglaise Brush Placed in the Skirt:

- Draw a gently curved line that follows the curve of the hem
- Place this line behind the skirt shape
- Mask the line using the skirt shape as the **Clipping Mask (Ctrl 7/Cmd 7)** (ref page 98)

This brush stroke is a very deep brush stroke and because of this will distort if the line is drawn with detailed curves.



Broderie Anglaise Embroidered Hem Brush:

- Drag the brush out of the **Brushes** panel, change the colours to match the fill and the border brush
- Create the mirror version of the brush as it is a one–way brush. Create new brushes ( ) with these designs

BACKGROUND FLOWERS – MASKING

Creating the Background Flower:

or

Pen Tool (P) or **Pencil Tool (N)**
Selection Tool (V)

The flower in the background of the story board has been extracted from a digital photograph, it has been masked and the colour changed to suit the colours of the story board.

1. Open up the digital photograph in Adobe Illustrator

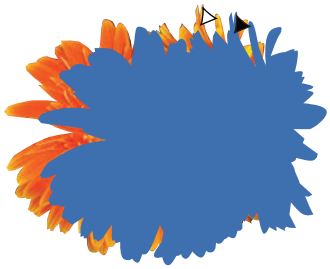
- Zoom up to the area you wish to extract
- Click onto the **Pen Tool (P)** and draw around the section of the photograph to be masked

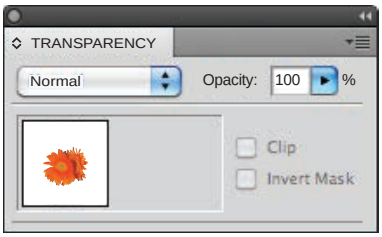
*The **Pencil Tool (N)** can also be used – however, it is easier to use the pencil tool to draw freehand if you are using a stylus not a mouse.*

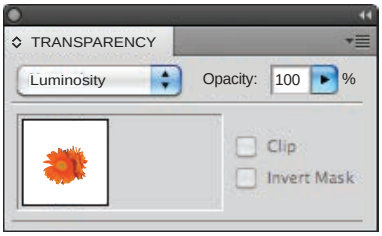
- Copy the shape **(Ctrl C, Ctrl F/Cmd C, Cmd F)** and move it off the photograph using the direction arrows and a **Keyboard Increment** of **10mm**

2. Select the photograph and the vector flower shape on top of it and **Make A Clipping Mask (Ctrl 7/ Cmd 7)**

BACKGROUND FLOWERS – MASKING







Creating the Background Flower (cont'd):

3. Click onto the copied flower shape and put a blue fill into it ( )

- Place the filled shape exactly on top of the masked shape either with the direction arrows or you can place one anchor point directly on top of another, the selection arrow goes white
- Send the blue flower shape to the back **(Shift Ctrl [/ Shift Cmd [)**
- Deselect the blue flower

4. Select the masked photograph and go to the **Transparency** palette (ref page 111)

- Click onto the down arrow to reveal the transparency options

- Select **Luminosity**

Luminosity creates a result colour with the hue and saturation of the solid-colour flower shape and the luminance or light of the photograph. This effect works best with a bitmap image where there are soft graduations of colour.

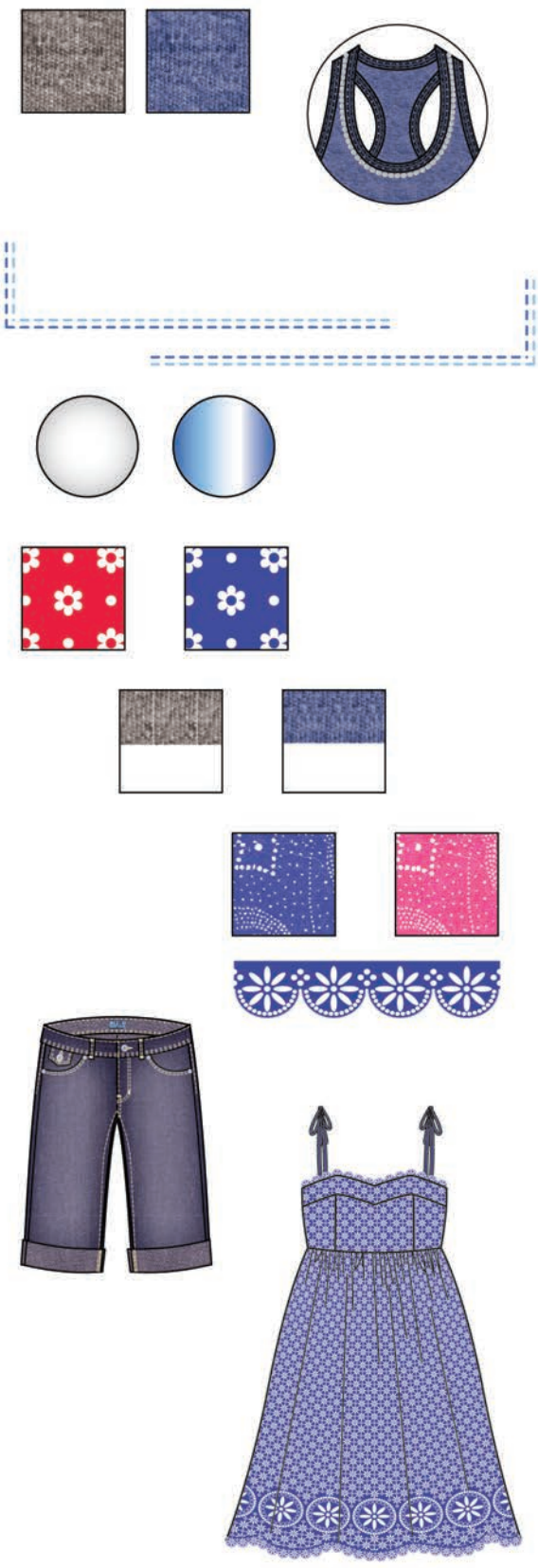
- The flowers can now be copied and manipulated – on this story board they have been made **Transparent** and have been **Rotated** and **Scaled**

Type and Type Along a Path:

- Place the flowers onto the story board
- Type titles next to each style
- Create a curved path around the flowers and type the story board theme onto it (ref page 31for Type instructions)

Girls 8-14
Spring into summer in the freshest of blus
Washed denim jacket
1 x 1 rib top with diamanté trim
Drop-waist x-over top
Basque skirt with embroidered hem
Yarn-dyed stripe top
Denim shorts
Broderie Anglaise dress
BLU-D

SUMMARY CHAPTER 4



Key Points in Chapter 4:

In Chapter 4 you have learned how to apply the knowledge from earlier chapters in a more realistic way to a final story board.

To summarise:

1. You have learned how to create pattern swatches from a plain scanned fabric and change the colour
2. We elaborated on brush strokes and looked at the centre of a brush stroke as in the Diamanté trim brush
3. We looked at two-colour brushstrokes and how to work the corner tiles
4. We explored the Gradient panel and applied it to buttons
5. We looked at simple offset pattern repeats and explored the Distort and Transform function
6. We included a scanned fabric in a vector pattern swatch
7. We scanned a printed fabric and applied it to an expanded brush stroke
8. We experimented with a colour change on that fabric
9. We scanned in denim and explored the Mesh Tool
10. We looked at the Transparency panel and applied that to the denim to emulate a wash
11. We created a broderie repeat and used it as a brush stroke
12. All the styles were colated on a story board
13. We created a simple logo and used Type On a Path to add the lettering to the logo
14. We used a masked bitmap image to add the final touches

CHAPTER 5

STORY BOARDS

Chapter 5 takes you through a series of story boards utilising knowledge gained from earlier chapters and introduces Adobe Photoshop. Each story board illustrates new ways to use your new skills.

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Note: some parts of headings or sub-headings may be summarised.

MALE CROQUIS DEVELOPMENT – HAND DRAWING

Croquis *– (Pronounced – kro–ke)*
A French word meaning a rough sketch. Fashion designers have adapted this word to refer to the figurative templates used to speed up the process of illustrating their designs.
The method used for developing a male or female croquis is very similar with some variations:

Female:

- Slender
- Leggy

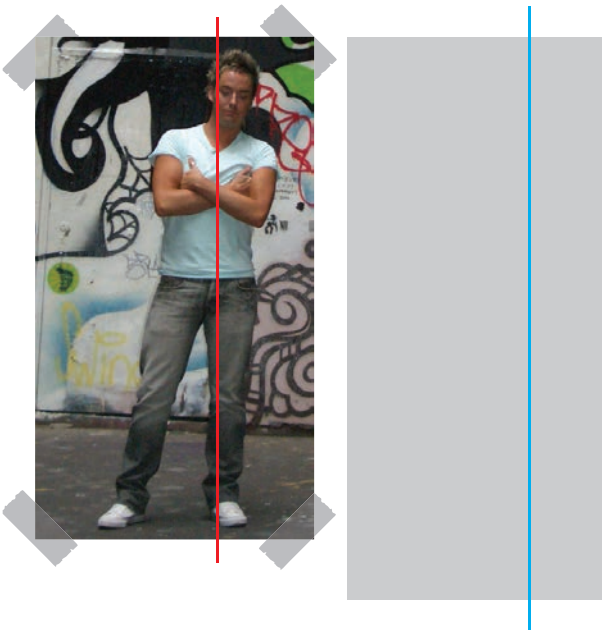
Male:

- Smaller head and squarer jaw
- Thicker neck and broader shoulders
- Torso tapered to narrower hips
- Well-defined muscles in arms and legs
- Thicker hands and feet

When taking a photograph of either a male or female you can give the illusion of height by positioning yourself lower than the model. When choosing a photograph, the pose should emphasise the most important features. The aim is to capture the fashion look but not to obscure the garment design. The photograph chosen has the figure in a relaxed pose, the majority of his weight is on his left leg.

Equipment needed:

- Photograph of a figure
- Drawing board or table
- Tape
- Ruler or L-square
- Two sheets of tracing paper longer than the photograph
- HB pencil
- Black felt–tip pen
- Eraser
- Scanner, computer and printer



Step 1: Select and prepare the photograph

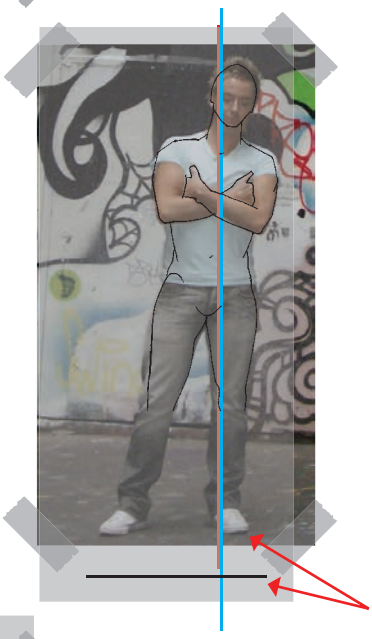
- Select your photograph carefully keeping in mind the garments you want to illustrate on it
- Tape the photograph to the drawing board
- Rule a line through the **Pit of the Neck** and at right angles to the floor. This is the **Balance Line**

The tracing paper must be longer than the photograph.

- Draw an identical line onto the tracing paper

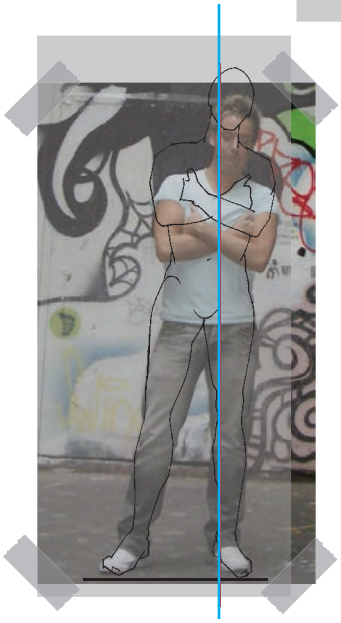
Step 2: Start to draw from the head down

- Place the tracing paper over the top of the photograph and **line up the axis** on both sheets
- Starting at the top, draw in the head making it smaller with a square jaw
- Move the tracing paper up a fraction and draw in the neck and broaden the shoulders
- Draw in the outline of the torso, arms and hands with well-defined muscles in the arms



Step 3: Draw in the legs to the knees

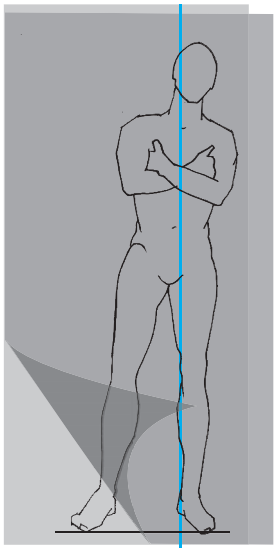
- Mark in the new position of the feet as indicated by the horizontal line. In this instance there is a head's difference

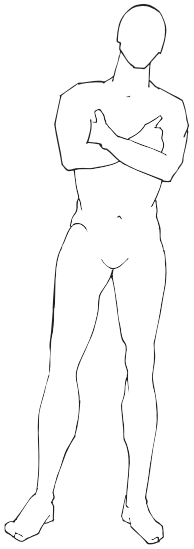


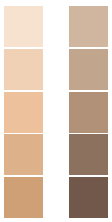
Step 4: Draw in the legs to the feet

- Move the tracing paper up to match the position of the feet on the photograph
- **Make certain that the axes match**
- Draw in the legs with well-defined muscles

The extent to which you elongate the figure depends on the client you are working for and your style of drawing, e.g. street wear or corporate uniforms. This technique is not based on the 7½ heads to 8½ heads.







a b

Step 5: Re-draw the figure with a felt-tip pen

- Remove the photograph and place a second sheet of tracing paper over the drawing
- Draw over the figure with a black felt-tip pen, making certain that **all lines are joined/closed**

This is essential for the next process of scanning the figure into the computer.

Step 6: Scan and trace the figure

Rectangle Tool (M)
Pen Tool (P)

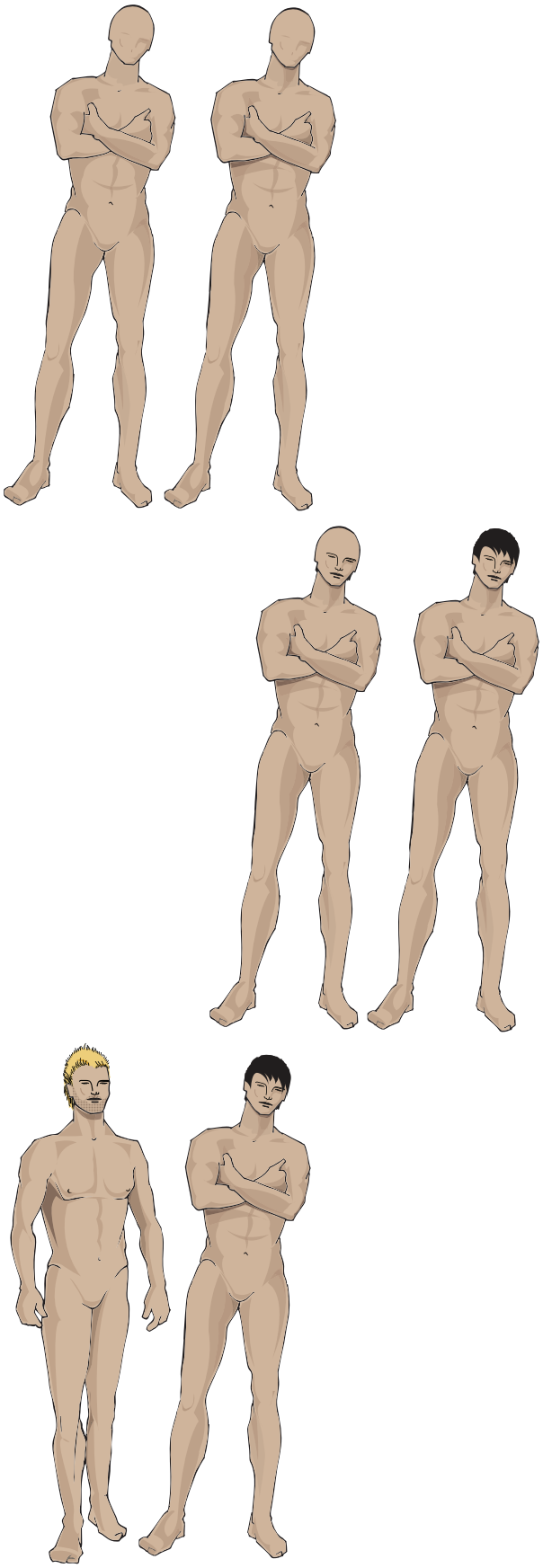
- Scanning – each scanner is different (ref page 36-37, scan, trace and expand the figure)
- Once the scanned image has been converted into a vector image save and print the file
- If shading is to be added to the figure you can plan this by rendering the printout
  Note: keep in mind the light source.

Step 7: Test shading and skin tones

Before commencing to render the figure, test the colours to be used. What appears on the computer screen may be entirely different to the hard copy from the printer. Each printer and different types of paper will produce different results. It is therefore advisable to test print the colours on the paper and printer to be used in the final product.

a. Colour used from the **Adobe Illustrator Swatch Libraries → Skintones**

b. Colour the figure in the selected colour



Step 8: Shading

Pen Tool (P)

- Use the hand rendering as a guide. Draw in the basic shaded shapes – lightest tones first, using the **Pen Tool (P)**
- Fill with colour and using the **Transparency** panel set the **Opacity** to **50%**
- Repeat this process using a degree of darker flesh tone – transparency should stay at 50%

Step 9: Facial features and hair

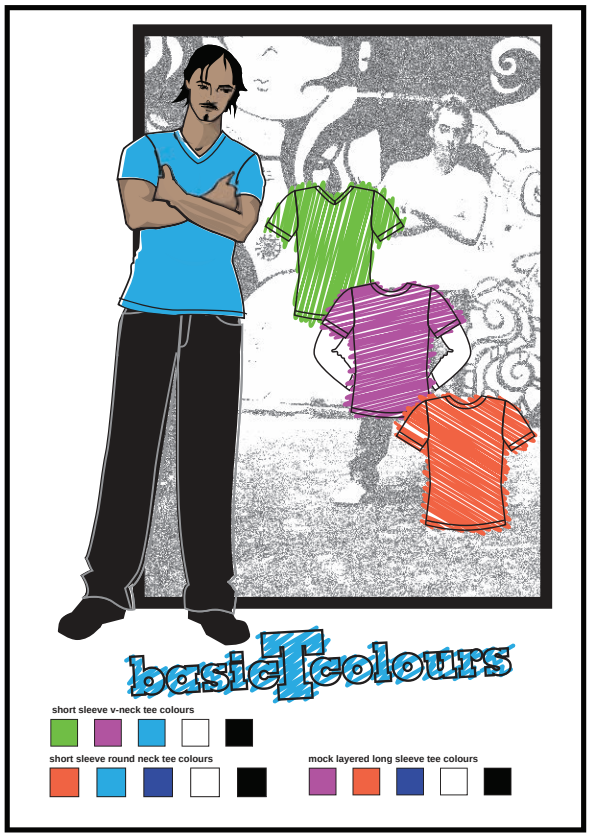
Pen Tool (P)

- Draw in the facial features
- Draw in the hair

Once this technique is mastered it is advisable to create a library of varying poses and styles of croquis to speed up the process of producing finished artwork.

- Save this file and name it **Male Croquis Library**

STORY BOARD 1 – DIGITAL PHOTOGRAPH

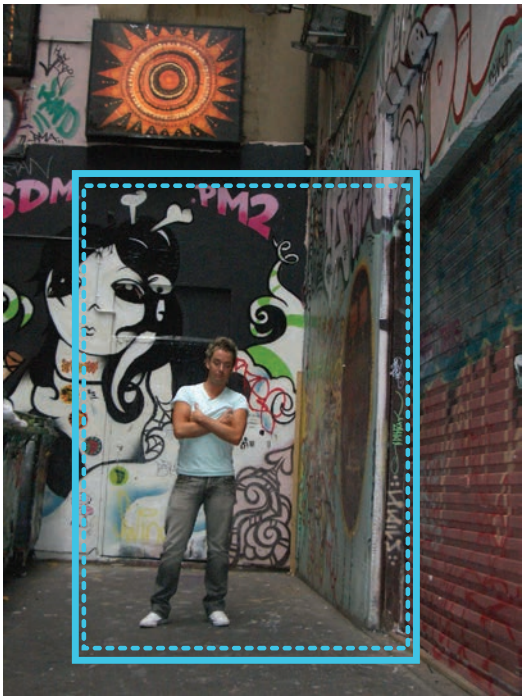


Creating Story Board 1:

Story board 1 is made up of four layers

- **Layer 1:** Consists of the background photo taken with a digital camera and opened up in Illustrator. The colour is changed to grey tones and the **Film Grain** effect is applied
- **Layer 2:** The garments are drawn onto one of the croquis created in the previous exercise
- **Layer 3:** Is made up of technical drawings of tee-shirts, colour applied and distorted with the Scribble Tool. A description of each garment is also added
- **Layer 4:** Colour swatches and text are drawn up considering the layout of the composition

The JPEG (Joint Photographic Experts Group) is a compression format and is most commonly used in digital cameras. Once loaded onto your computer you should save the image to a **TIFF** or **AI** file. If you close an image, then reopen it and save it again as JPEG format, you apply a further compression. Save to JPEG format only after you finish the composition.



Step 1: Open a new file and plan your layout

- Open the file with the image you plan to use as a background image, copy this image into a new file
- **File → New**
- The image may be much larger than the A4 printable page
- Plan the final composition, considering all elements including fabric swatches, technical drawings and mood photographs, which may be included in the presentation. These can be done as rough sketches by hand
- At this stage consider whether your final presentation should be **Landscape** or **Portrait**
- If the page is to be bound as part of a book allowances must be made for a wider margin on the top or lefthand side

Step 2: Scale the image to fit into the layout

- Scale the image to fit the page considering the planned layout
- Holding the **Shift** key will scale the image proportionately, do not be tempted to drag or distort a background image with a person in it

Step 3: Rasterize the photograph to greyscale

- Click onto **Object** in the menu bar
  ↓
  Rasterize
- Select **Color Mode: Grayscale**
- **High** (300 dpi)
- **OK**

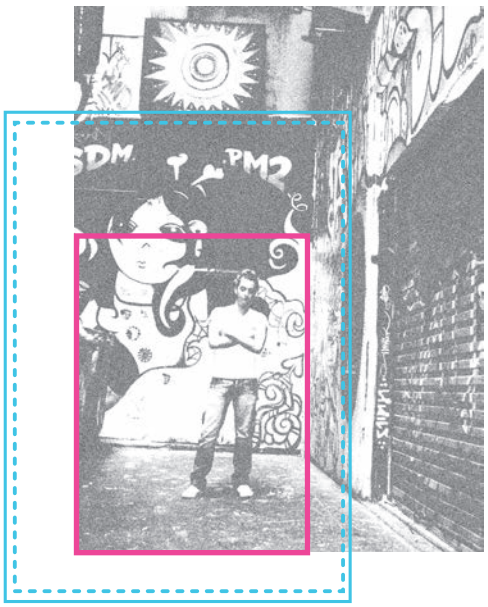
By rasterizing the image first, your file will be smaller than if you went straight into the next step.

- To adjust the tone click onto **Filter** in the menu bar
  ↓
  Colors → Adjust Color
- An option box will appear
- Color Mode: **Grayscale**
- Select the **Preview** option (☑) and the **Convert** option (☑)

Adjust the tone by using the slide bar

Step 4: Film Grain

- Go to **Effects** in the menu bar
  ↓
  Artistic → Film Grain
- Different effects can be achieved by experimenting with the values in the **Effects** panel
- The illustrated effect was achieved with the following values: **Grain 4, Highlight Area 0, Intensity 10**, or you may wish to experiment with the other effects: for example – **Poster Edges**



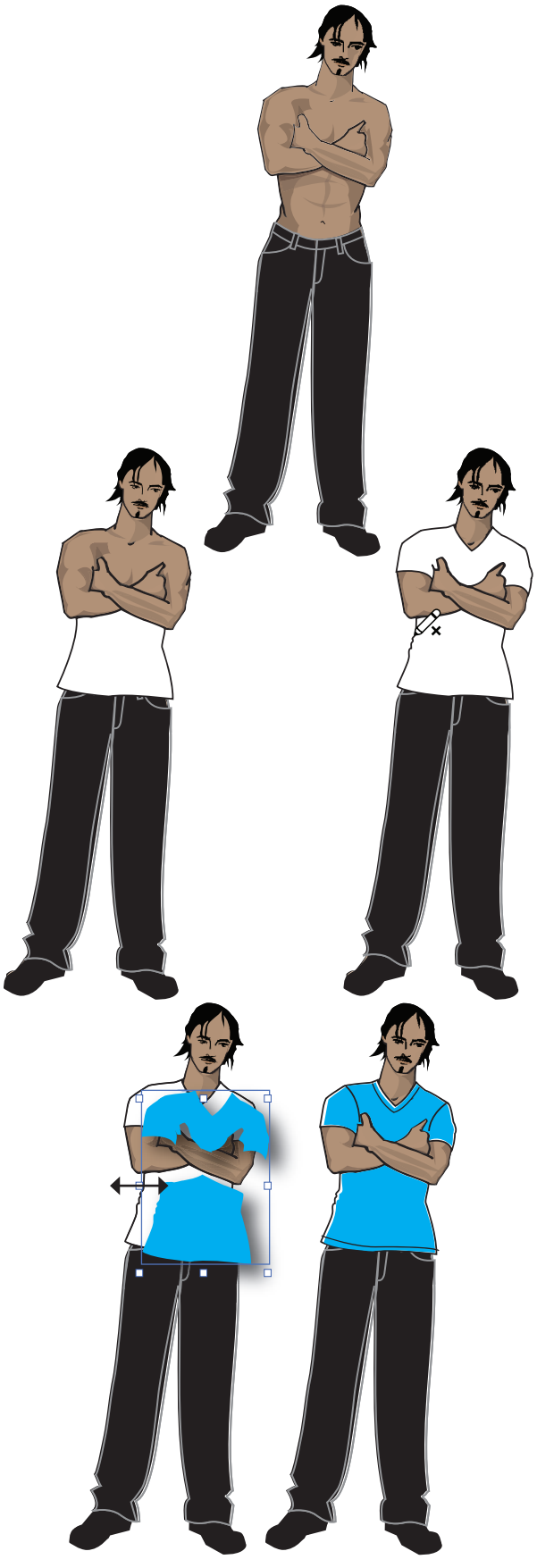
Step 5: Crop the image with a mask

- Create a rectangle the size of the area to be masked
- Take note of the composition

- Marquee over the image and the rectangle
- Right click the mouse, a pop-up menu will appear, select **Make Clipping Mask (Ctrl 7/Cmd 7)**

!REMEMBER!

Save the file: **Ctrl S/Cmd S**

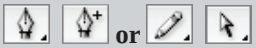


Step 6: Draw the trousers

Pen Tool (P)
Pencil Tool (P)
Direct Selection Tool (A)

- Create a new layer (**Layer 2**) following directions outlined on pages 38 and 39
- Lock **Layer 1** in the **Layers** panel
- From the croquis developed earlier, select one appropriate to the garments you are illustrating and the composition of your story board. Open the file, copy it and paste it into the story board file
- It is preferable to lock the figure at this stage: **Object⟶Lock Selection (Ctrl 2/Cmd 2)**
- Draw in the shoes then the trousers. It is easier to create shapes in the order that they are layered from the back to the front

Step 7: Draw the tee-shirt

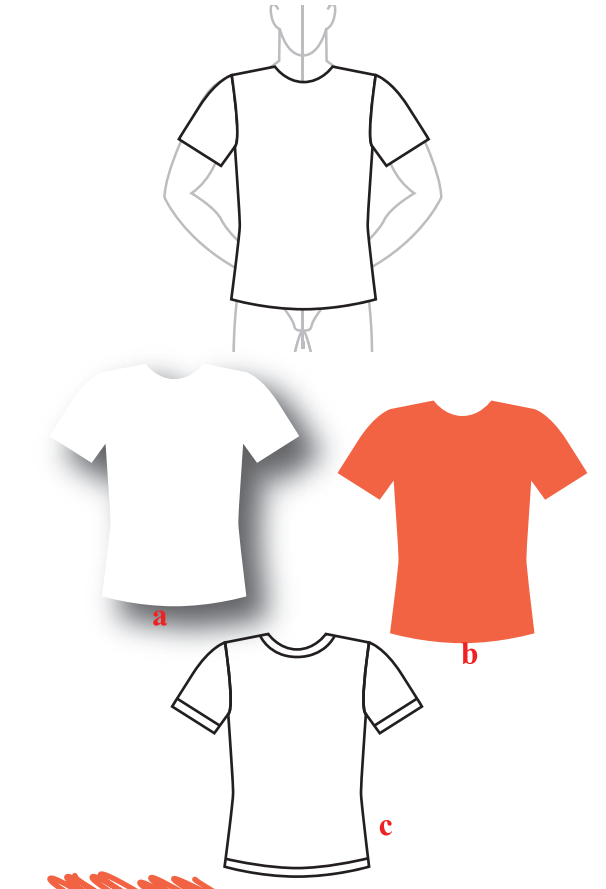


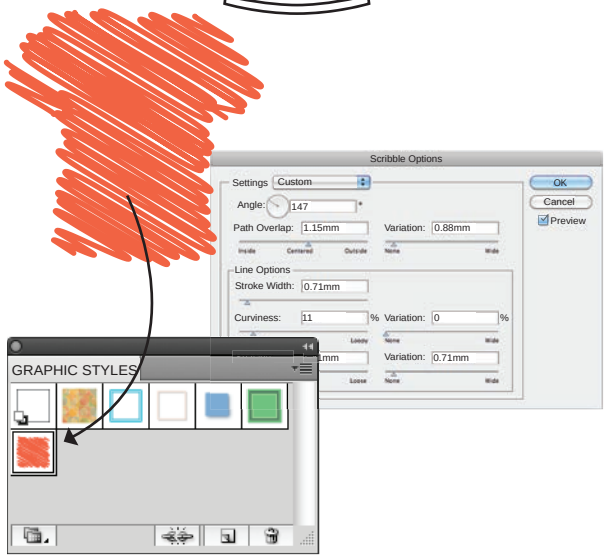
Pen Tool (P)
Add Anchor Point Tool (+) or Pencil Tool (P)
Direct Selection Tool (A)

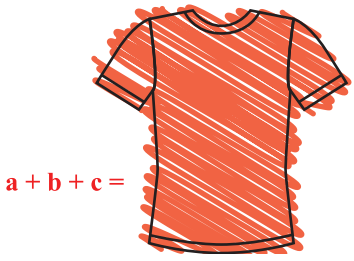
- Draw in the bottom of the tee-shirt over the top of the trousers and around the arms. Repeat this process for the top section of the tee-shirt. Fill both shapes with white and a black stroke ( ). Anchor points can be added and manipulated to give the effects of folds by using the **Add Anchor Point Tool (+)** or use the **Pencil Tool (N)** (ref page 119)
- This garment shape will be used as the white accent
- Duplicate both sections of the garment and reduce the width by scaling only the handles on the vertical side of the bounding box
- Fill these shapes with the desired colour and remove the outline. Place this back onto the figure and if necessary adjust the shape using the **Direct Selection Tool (A)**. The white accent should be on the opposite side to the shadow. Draw in the details such as seams and top stitching

- Click onto **Object⟶Unlock All (Alt Ctrl 2/Alt Cmd 2)** to unlock the croquis
- Marquee over the whole figure, right click and a pop-up menu will appear, select **Group (Ctrl G/ Cmd G)**

TEE-SHIRT WITH SCRIBBLE EFFECT







Step 8: Create a basic crew-neck tee-shirt

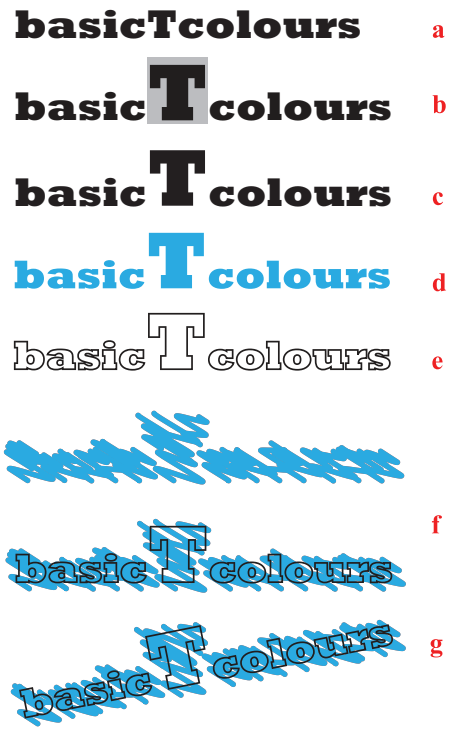
Pen Tool (P)

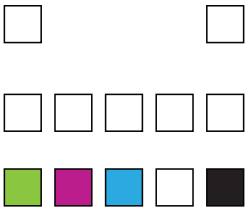
- Create a new layer (**Layer 3**) following directions outlined on pages 38 and 39
- Lock **Layer 2** in the **Layers** panel
- Select the **Pen Tool (P)** and draw a tee-shirt shape, using the Male Croquis as a guide (ref pages 40 - 43, you can apply the same principles as the dress to draw the tee-shirt)

- Move the tee-shirt off the croquis, fill with white and no stroke ( ) **a**
- Duplicate this tee-shirt, fill with a colour and no stroke ( ) **b**
- Duplicate again and remove the fill colour and add a black outline. Add the hem and neckband details using a stroke and no fill ( ). Marquee over the tee-shirt and group it **c**

Step 9: Add a Scribble effect to the tee-shirt

- Scribble Effect – to give the appearance of marker pen strokes, click onto the coloured tee-shirt and go to **Effects**
  ↓
  Stylize → Scribble
- The **Scribble Option** dialogue box will allow you to change the **Angle**, **Stroke Width**, **Curviness** and **Spacing**
- Once the desired effect has been achieved, you can save the settings in the **Graphic Styles** panel
- This can be accessed through **Window**
  ↓
  Graphic Styles (Shift F5)
- Drag and drop the shape into this panel
- To save this library for use in other files, go to the **Graphic Styles** panel and click onto the arrow at the top righthand corner to reveal the drop-down menu. Click onto **Save Graphic Style Library...** and name the file (ref page 104 – *Understanding Libraries*)
- Move each shape on top of each other
  a: white base
  b: coloured scribble
  c: black tee-shirt outline
  Marquee over all shapes and group them **(Ctrl G/ Cmd G)**
- Draw up all styles and add the scribble effect





Step 10: Create text and then 'outline' the text

Type Tool (T)

- Create a new Layer (**Layer 4**)
- Lock **Layer 3** in the **Layers** panel
- Create the text: '*basic T colours*'
- Highlight the text with the **Type Tool (T)** and change the font to a suitable font, the font we used here is **Rockwell** bold, **a**
- To change the font size highlight the desired text, as we have done with the 'T' go to the Character panel and select a font size to suit your text, **b**

You can highlight all the lettering to do this or just some of the letters.

- Select the text and click onto **Type** in the menu bar → **Create Outline**, **c**
- The words are automatically grouped

Step 11: Stylise the text

Selection Tool (V)
Rotation Tool (R)

- Change the fill colour to blue and no stroke, **d**
- Copy the words once and put a black stroke and no fill into it, **e**
- Put the scribble effect into the blue lettering, place the lettering on top of each other **f**
- Group the lettering and rotate the words with the **Rotation Tool (R)**, **g**

Step 12: Colour swatches

- Click onto the **Rectangle Tool (M)** and create the first colour swatch
- Copy this to the right for the last swatch, **a**
- Double-click onto the **Blend Tool**, an option box will appear, go to **Spacing,** and select **Specified Steps → 3 → OK**
- Blend the two colour swatches and then **Expand** them (ref page 46–47), **b**
- Now **Ungroup (Shift Ctrl G/Shift Cmd G)** the object, deselect by clicking away. Fill each swatch with a colour. Marquee over the swatches and group them again, **c**
- Copy this group for the other two tee-shirt colour ranges
- The composition is now complete

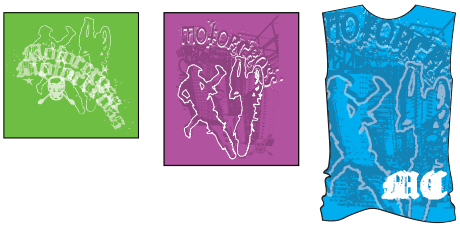
STORY BOARD 2 – TEE-SHIRTS AND PLACEMENT PRINTS

cotton jersey, mock double poloshirt with coverstitch hems & front placement print
cotton jersey tee-shirt with front impact placement print
cotton jersey tee-shirt with front placement print

Creating Story Board 2:

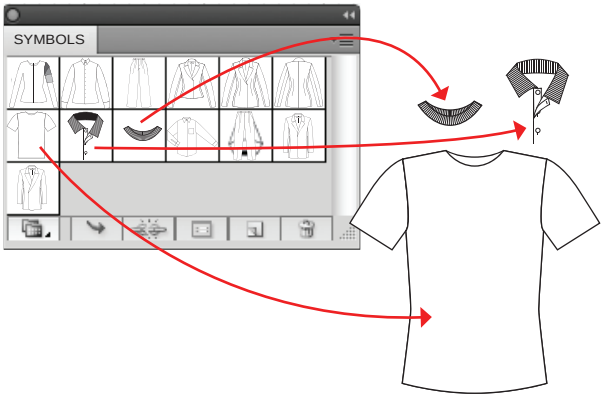
Pen Tool (P)
Pencil Tool (N)

Story board 2 consists of tee-shirts using the *Male Youth Symbol Library* and stylised using the pencil tool. Each tee-shirt has a different placement print, using the same elements to make up the whole print



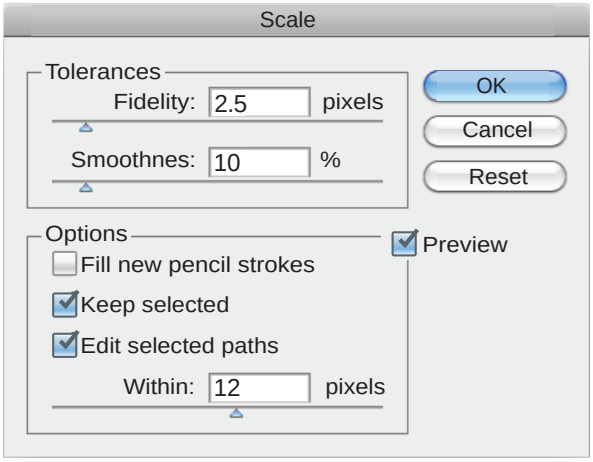
Step 1: Draw a basic tee-shirt

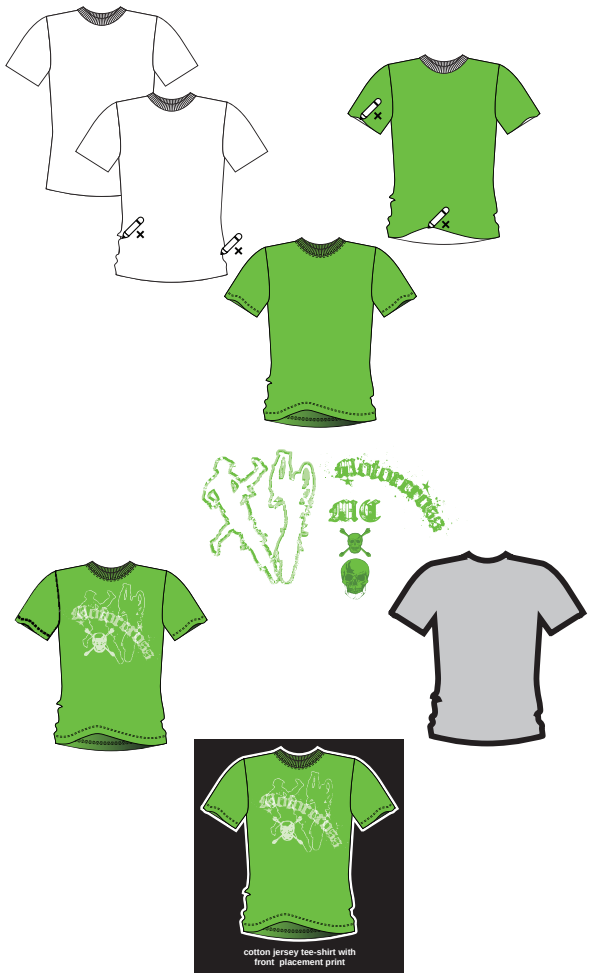
- Either draw up new tee-shirts on the Male Youth Croquis or if you have created a library as suggested on page 101 open the Male Youth Symbol Library and select the short-sleeve tee-shirt; the rib neckband and the polo knit collar
- Click onto the **Break Link To Symbol** icon ( )



Step 2: Pencil Tool options

- Double-click onto the **Pencil Tool** to reveal the options
- **Fidelity** controls how far the mouse or stylus moves before a new anchor point is added to the path
- The fidelity for this tee-shirt is 2.5. This means that every 2.5 pixels an anchor point is added to the path
- The higher the fidelity, the smoother the line
- **Smoothness** controls the amount of smoothing that is applied when you use the tool
- **Keep Selected** determines whether or not the path remains selected after it is drawn
- **Edit Selected Paths** determines whether or not you can change an existing path with the **Pencil Tool** within a certain tolerance. This means how close the cursor has to be before the selected line will be altered
- For the purpose of this exercise this option must be selected





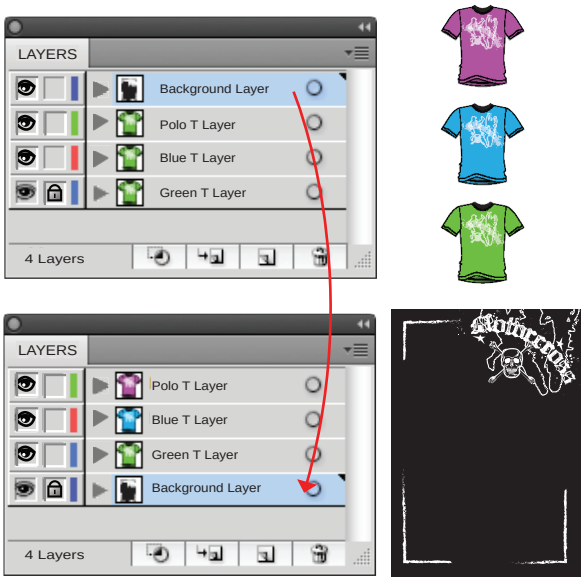
Step 3: Adjusting the tee-shirt

- Select the body of the tee-shirt and click onto the **Pencil Tool (N)**
- Alter the side seams and copy the selected body to the back **(Ctrl C, Ctrl B/Cmd C, Cmd B)**
- Select the front body and alter the hem
- Select the back body and fill it with a gradient (ref page 116 – changing the colour, direction and character of a gradient)
- You can do the same with the sleeves
- Place the stitch details onto the garment

Step 4: Create the key line around the tee-shirt

- Select the back body, the sleeves and the neckband and copy and move these to the side, hold down the **Shift** and **Alt** keys at the same time as moving the selected shapes
- Do not deselect
- Click onto the **Unite (****)** option in **Pathfinder**
- Place a **Stroke** around the finished shape and increase the size of the stroke to approximately **6 pts**
- Move this shape behind the tee-shirt and change the fill and stroke to white as this is going onto a black background
- Marquee over the whole image and **Group (Ctrl G/ Cmd G)**

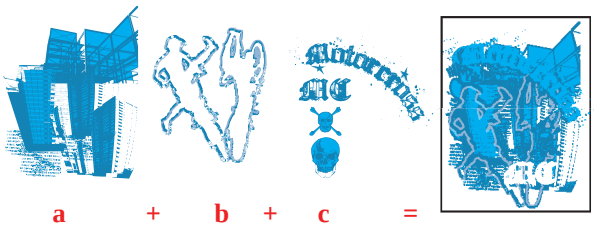
Step 5: Layers and layer order

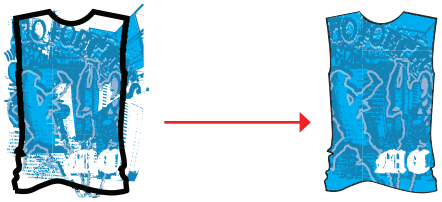


- Once the first tee-shirt and placement print is finished, create two more new layers ( ) and copy the green tee-shirt to them (ref page 61)
- You can now create the next two tee-shirts
- Create a fourth layer for the background image, we have used elements from the placement print to add interest to the background
- Select this layer and drag it below the tee-shirt layers to be the first layer – the one at the bottom
- Lock the first and third layers () and change the colour of the tee-shirt in layer 2
- Go to **Select** in the menu bar

  ↓

  Same → **Fill Color** (ref page 61)
- Change the colour of this tee-shirt to blue and in the third layer change the colour to purple after locking layers 2 and 3





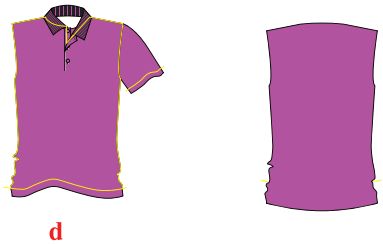
Step 6: Impact placement print tee-shirt

The placement print is made up of :

- A traced photograph, **a**; figures re–drawn with the **Pen Tool (P)** over an image off the Internet, **b** and downloadable free fonts from a font web site and downloadable free **windings** from a font web site (ref page 151), **c**
- The blue tee-shirt has an *Impact Print* on the front

A placement print is printed within the boundaries of a garment piece. It is not full coverage and can be printed on coloured base cloth.
An impact print is usually a 100% cover print, printed from edge to edge on a white ground.

We have first created the print and then masked the placement print with the front body shape (ref page 98–99)



Step 7: Polo-collar, mock-layered tee-shirt

- The polo tee was created using elements of the impact print and adding a knit collar to the basic tee-shirt
- Make a copy of the tee-shirt and change this to white, **a**
- Ungroup the original and move the back aside, **b**
- Delete the back sleeves
- Lift the back neck to line up with the polo collar that you created in your symbol library, **c**
- Cut out the front neck to accommodate the collar
- Make the front body and sleeves a little shorter to show the layered effect, **d**
- We have put the knit collar and the pocket on top of the placement print, showing that the tee-shirt was printed before it was sewn, **e**
- Move all the components back together and group them, **f**

Step 8: Arrange the tee-shirts on the background

- Unlock all layers except the background layer and arrange the tee-shirts in place

Downloading Fonts and Clip Art:

- Downloading free fonts is very easy; however, we would like to ***WARN*** you about the importance of familiarising yourself with copyright laws
- Generally, when you download a font a *Readme* file will be downloaded at the same time, click onto this file and it will give you the conditions of use for that particular font
- Wherever necessary, buying the font is preferable

Download a Font:

- Open up your Internet browser and search for **Fonts**
- There are a plethora of 'free' font web sites – the one we find easy to navigate and which always has good fonts is Dafont (www.dafont.com)
- Follow the web site's instructions on viewing and downloading the font

Place the Font into the Font Library: – Windows OS

- When downloading fonts from the Internet ensure you select the correct file for your operating system
- The file extension or file name for a font is TTF
- The font will initially download in a compressed file format – this file will need *extracting*
- It is important to download the font to a folder where you will be able to locate it again – like a folder in your work folder for **Downloaded Fonts**

  a: Open up Windows Explorer and go to your **Downloaded Fonts** folder, double-click on the compressed file and you will be prompted to choose a program to extract the file
  b: The program will give you an option to extract the file to a certain folder – the font will need to be extracted to the Font folder in the WINDOWS OS folder for it to be activated as a font
  This is the file path:
  My Computer/C–Drive/WINDOWS/Fonts

- The font will be filed under the font name
  Bill Hicks 5
- You will be able to access it in the font list in **Adobe Illustrator** or in any other program on your computer

Place the Font into the Font Library: – Apple OS

- Download the desired font
- Apple OS will automatically expand it if it was a compressed file
- Double-click on the folder in the downloads folder to open the folder
- Double-click on the file with the .ttf extension
- This will automatically open **Font Book**
- **Font Book** now displays a preview of the font
- Click onto the **Install Font** button on the lower right side of the window
- A secondary **Font Book** window will open showing the new font file included in the list
- Clear the original folder in the downloads folder

Clip Art and Windings:

- **Clip art** comes in a variety of file formats from vector art through to TIFF Files – high-quality bitmap files. Again it is important to take care with the copyright instructions here – most web sites or publications will stipulate how these can be used
- The following is a standard list – you must exercise caution when using clip art

1. You may use clip art in your school assignments and projects
2. You may use clip art in your church brochure
3. You may use clip art for personal, non-commercial uses
4. You may not use clip art to advertise your business
5. You may not use clip art to create a company logo
6. You may not use clip art to illustrate the chapters of a book

- **Windings** are font files, but they contain clip art images (refer to the Paisley on page 184)
- Windings are downloadable in the same way as fonts
- To use windings, it is important to type out the whole alphabet and **Create Outlines (**ref page 117)
- The images will be grouped
- Ungroup the images to use individual images

STORY BOARD 3 – DENIM WASH EFFECTS

Layer 3

Layer 2

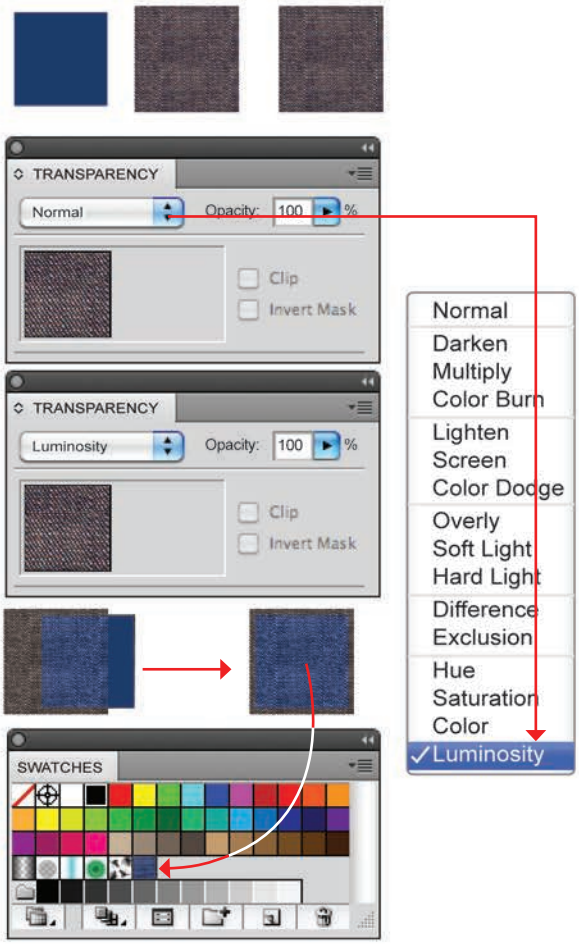
Layer 1

Creating Story Board 3: Men's Denim Jean Board

Story board 3 is made up of three layers:

- **Layer 1:** Consists of the background photograph and the story board layout
- The background photograph is not edited and is taken with a digital camera, opened up in Adobe Illustrator, placed on the page layout in landscape
- Remember to change the font to a vector image by selecting **Create Outlines** in the **Type** options when you save the final story board
- **Layer 2:** Consists of the croquis illustration. The croquis was developed from a photograph using the same principles as the first croquis you developed
- **Layer 3:** Consists of the styling – the looser more relaxed look was achieved by drawing the jeans onto a basic croquis (ref page 102 for a male croquis) and loosening it up with the **Pencil Tool**

- The following pages will focus on how to achieve different washes and colours in denim



Denim Jeans with Different Wash Effects:

*The wash effect in this jean was created using a **Gradient Mesh**. This tool has already been introduced in a simpler form on page 126, which suited the simpler shape of the shorts. For this more complex shape a more detailed **Gradient Mesh** is required so that the highlights appear softer.*

- Open up the reverse side denim scan from page 126 or scan another denim swatch, the more texture and contrast the better. Note the difference between swatch **a** and **b**

This process requires a sharper contrast so it is best to use the reverse side of the denim.

a **b**

Dark Wash Pattern Swatch: This treatment uses swatch **a** with the following adjustments:

Step 1: Draw a rectangle

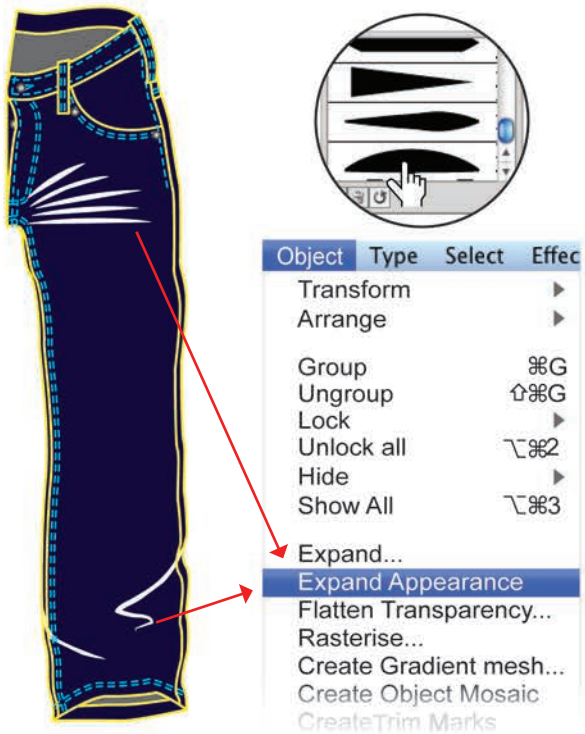
- Draw a rectangle on top of the denim scan with a plain fill in it, this must be the depth of the colour you would like the denim to be. Do not deselect this rectangle
- Arrange the plain rectangle to go behind the denim scan **(Shift Ctrl [/Shift Cmd [)**
- Copy and paste the rectangle, once more to the back of the existing rectangle **(Ctrl C, Ctrl B/Cmd C, Cmd B)**, remove the fill ( )

Step 2: Transparency panel

- Select the denim only and go to the **Transparency** panel and select **Luminosity** (ref page 134 for an explanation of **Luminosity)**

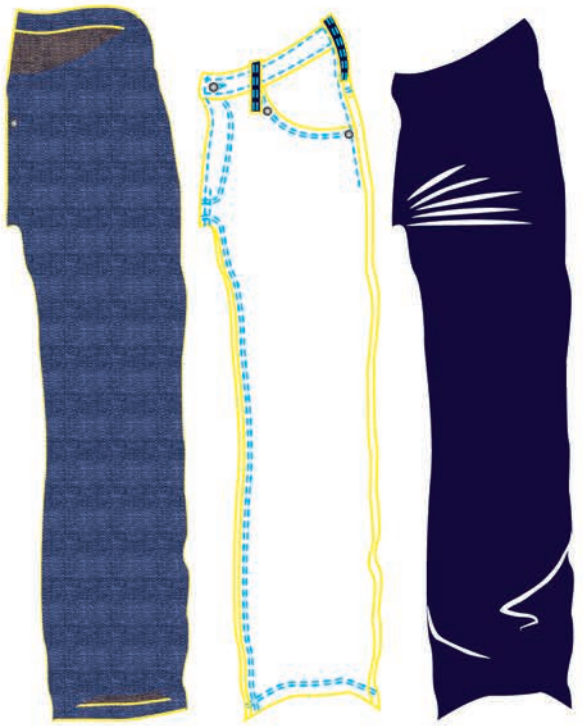
Step 3: Create the pattern swatch

- Select the whole swatch and drag this into the **Swatches** panel
- Fill the illustration with the denim pattern fill



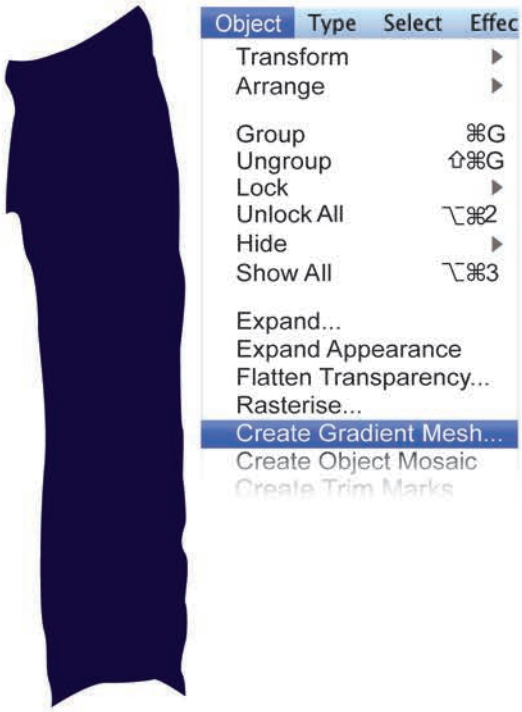
Step 4: Prepare the jean to apply the denim fill and wash effect

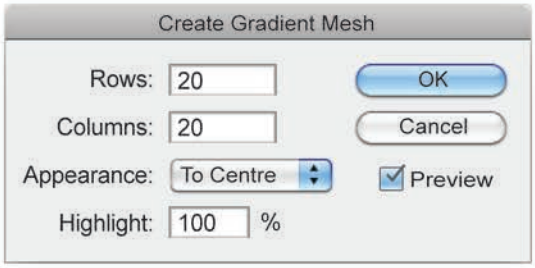
- It is best to work on the half and then reflect the jean once the fill and wash effects have been added
- This jean consists of the following components:
  1. The back leg shape ( )
  2. The back inside waistband shape ( )
  3. The back folded in hem shape ( )
  4. The front leg shape ( )
  5. A line drawing only of the style details and belt loops ( )
  6. Top stitch details ( )
  7. Highlight wash effects and folds ( ). These were created using the **Line Profile** option *Width Profile 6* in the **Stroke Panel** (ref page 90) and then they were expanded to be fillable shapes (ref page 96 for instructions on expanding, the same instructions apply to these lines)



Step 5: Separate the components

- Move the front leg style lines, stitch lines and style details to the side
- Fill the back leg with the original denim swatch scan ( )
- Fill the front leg, the back waistband and the back hem with the altered colour denim swatch ( )
- Copy the front leg once to the side (remember to use **Keyboard Increment** to move components, ref page 14)
- Fill the copied front leg with a plain navy ( )





Step 6: Create the Gradient Mesh

- Go to **Object** in the menu, click onto

Create Gradient Mesh

- An option box with rows and columns will appear

More rows and columns in the image will give the option for more detailed shading but this will make your file much larger!!

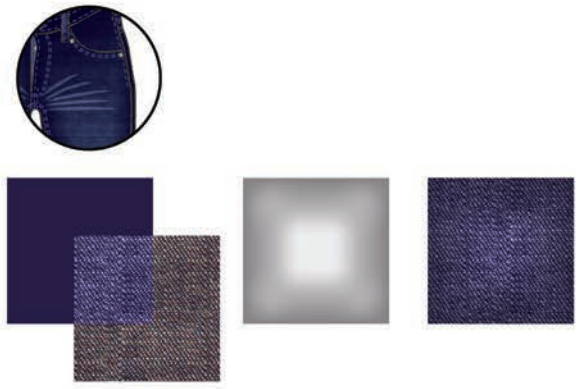
- Type the number of rows and columns required in the option box
- Select the **Preview** option to see what the mesh will look like
- There is also a choice of **Appearance**
  Flat: gives the option to select **anchor points** to change
  To Centre: highlights the centre of the shape and
  To Edge: highlights the edges
- We have used **To Centre** in our example, to give the appearance of a sandblasting effect
- The back waistband and hem turnback were highlighted with the mesh tool from the tool box (ref page 127)

Step 7: Transparency Panel

- Select each of the shapes that have the gradient mesh in them
- Click onto the **Transparency Panel** and select **Soft Light** from the drop-down menu
- The finished effect will look like dirty dark denim

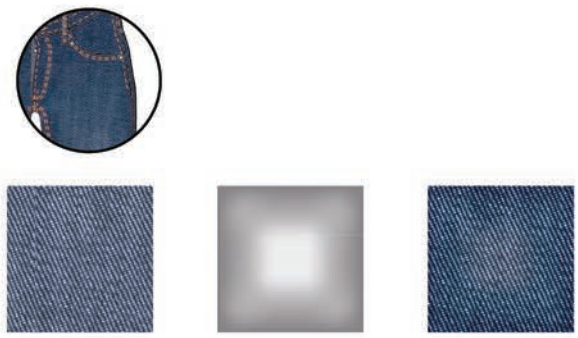
This whole process is contingent on the paper and printer used. It is good to experiment and print out different colour combinations. You can then change colours and transparency accordingly.

- Move all the components back on top of each other and group them **(Ctrl G/Cmd G)**
- Continue on to complete the front view

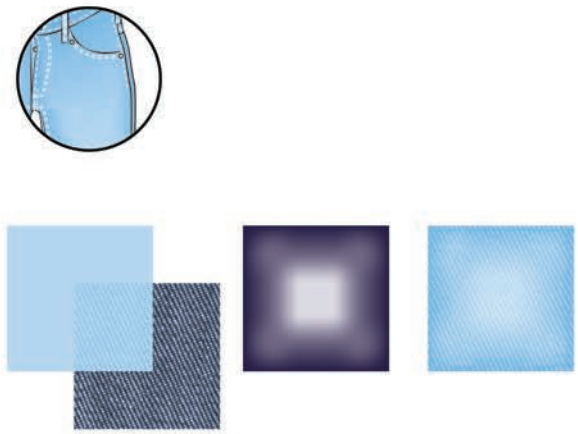


Alternative Denim Colours and Washes:

- **Swatch 1:** This swatch has been illustrated and consists of the following components:
  1. Scanned denim swatch with colour change (ref page 153)
  2. Gradient mesh on top, this has a dark grey colour with a transparency option applied to it (ref page 155)



- **Swatch 2:** This swatch consists of the following components:
  1. Scanned denim swatch no colour change
  2. Gradient mesh on top, this has a dark grey colour with the transparency option **Color Burn** applied to it (ref page 155)



- **Swatch 3:** This swatch consists of the following components:
  1. Scanned denim swatch with colour change.The background plain colour should be a pale blue and the transparency option for the denim scan should be **Soft Light**
  2. The gradient mesh on top, this has a deep navy fill colour with the transparency option **Soft Light** applied to it (ref page 155)

Creating Story Board 4: Adobe Photoshop

Story board 4 has been created in Adobe Photoshop only. Through this story board we will introduce you to some simple Adobe Photoshop functions and how we apply them to creating story boards. Before you start, however, you will have to do some preparatory hand drawing.

Equipment needed:

- Photograph of a figure
- Background photograph
- Drawing board or table
- Tape
- Two sheets of tracing paper
- HB pencil
- Black felt-tip pen
- Eraser
- Scanner, computer and printer

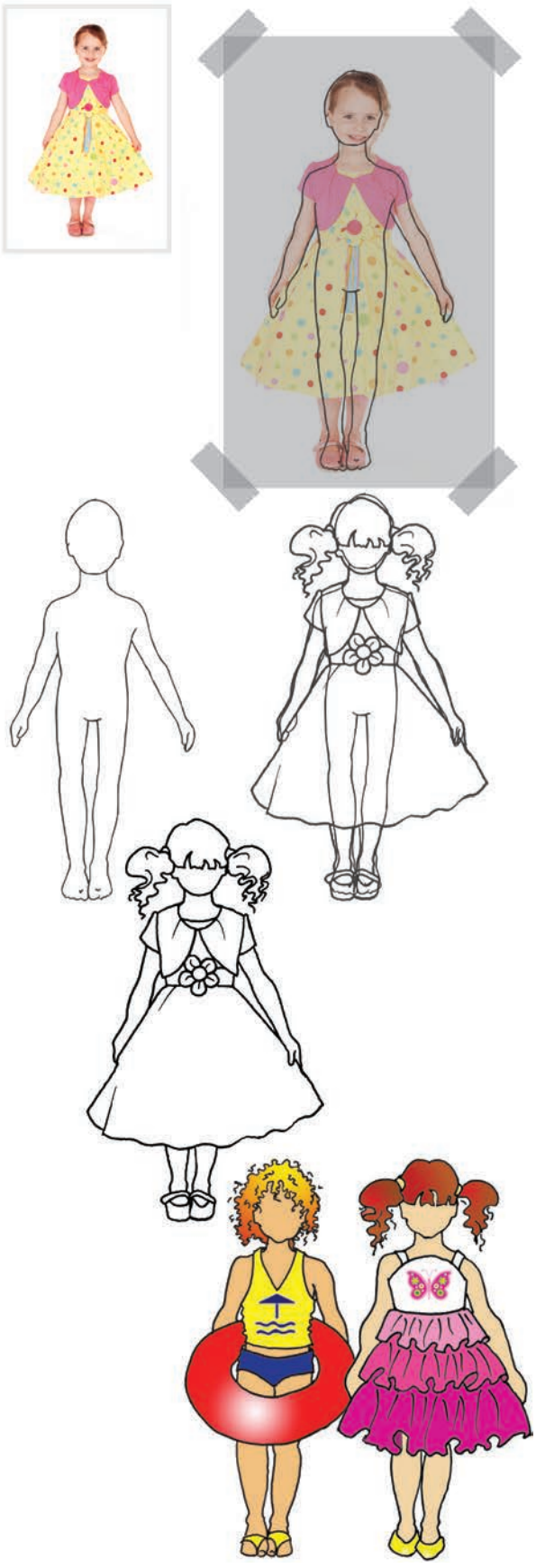
This story board consists of three layers:

- **Layer 1:** is a plain white background (this can be changed to a colour at a later date if needed)

- **Layer 2:** Consists of the background photo taken with a digital camera and manipulated in Adobe Photoshop to create a landscape image, not a portrait (ref page 174 for this). It is then copied and pasted into the story board file in a new layer and is further edited, including a colour change suited to the garment image

- **Layer 3:** Using the photo of the child, a line drawing croquis is developed for this project and future use. The figure is re-drawn including the garments, hair and shoes. The line drawing is scanned as a JPEG file, opened up in Adobe Photoshop, cleaned up and coloured. Shading was added as a separate layer and then incorporated into **Layer 3** once we were satisfied with the results

HAND DRAW A FASHION ILLUSTRATION



Step 1: Create a fashion illustration of a young girl from a photograph

- We have used a photograph of a young girl who is approximately five years old. Unlike the previous method used on page138 - 140 there is no need to elongate the figure unless this is your style

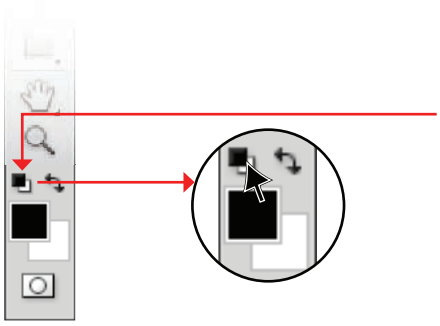
Tip: *It is always easier to use an open pose as in our photograph, this makes it much easier to develop your croquis and it is easier to draw different styling on the croquis.*

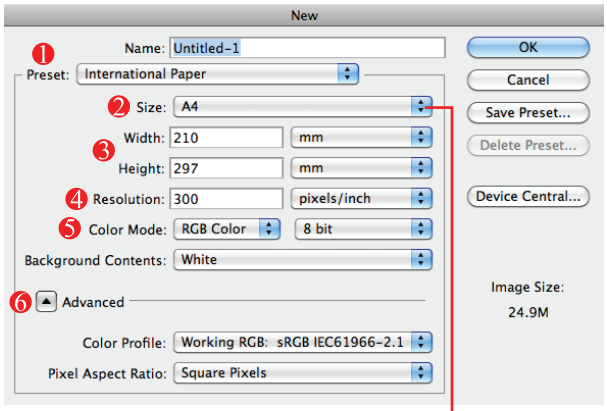
- Following the preparation steps on page 138 you will need to have a copy of the photograph you are using printed out to suit an A4 story board and some tracing paper to draw over the figure

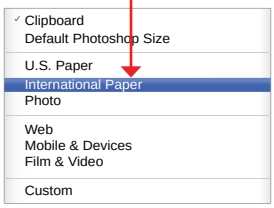
- Once you have the basic croquis, you can remove the photograph and draw a new figure including garments. The original croquis can be kept to develop further illustrations

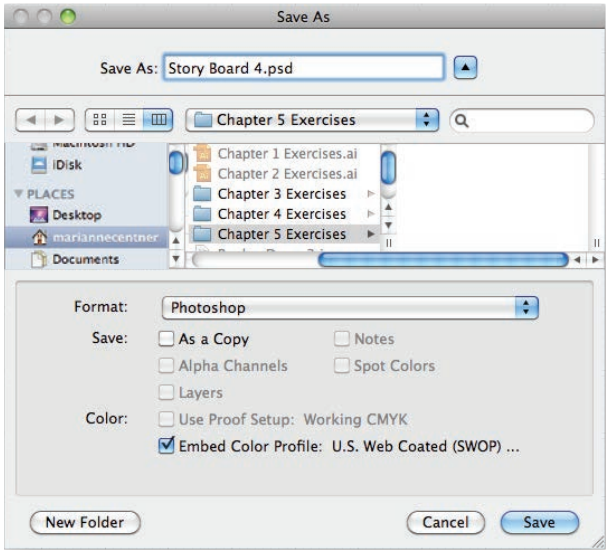
- Draw over the dressed figure with a black felt-tip pen, making certain that **all lines are joined/closed**
- The illustration can now be scanned

You can use the basic croquis to develop other illustrations.









Step 2: Open a new file in Adobe Photoshop

- Open the Adobe Photoshop program
- Click onto the **Adobe Illustrator** icon to open the program: Windows OS – Start up > All Programs > Adobe CS5 > Photoshop
  Apple OS – Applications > click onto the PS icon once and then again when the dialogue box opens
- Before you open a New File check that the swatches at the bottom of the Tools Panel are set at the **Default Foreground and Background Colors (D)**

- Click onto **File** in the menu bar
  ↓
  New Ctrl N/Cmd N
- A dialogue box will appear

❶ Preset: click onto the drop-down menu and set this to International Paper
❷ Size: **A4**
❸ **Width** and **Height** can be transposed for landscape view
❹ Resolution: **300 pixels/inch**
❺ Color Mode: **RGB**
❻ You can leave **Advanced** on the default settings

- **OK**

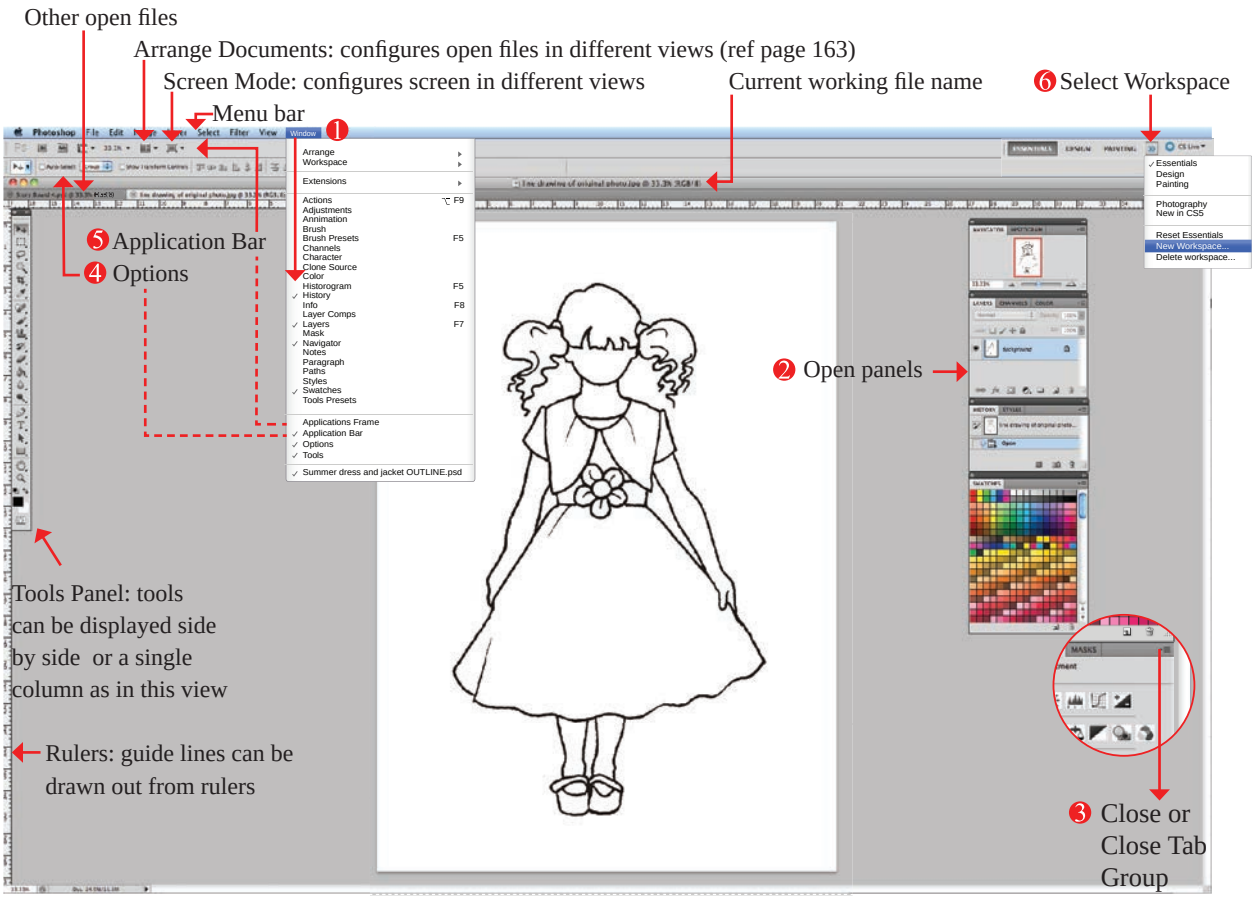
- **Now save this file:**
- Click onto **File** in the menu bar
  ↓
  Save File

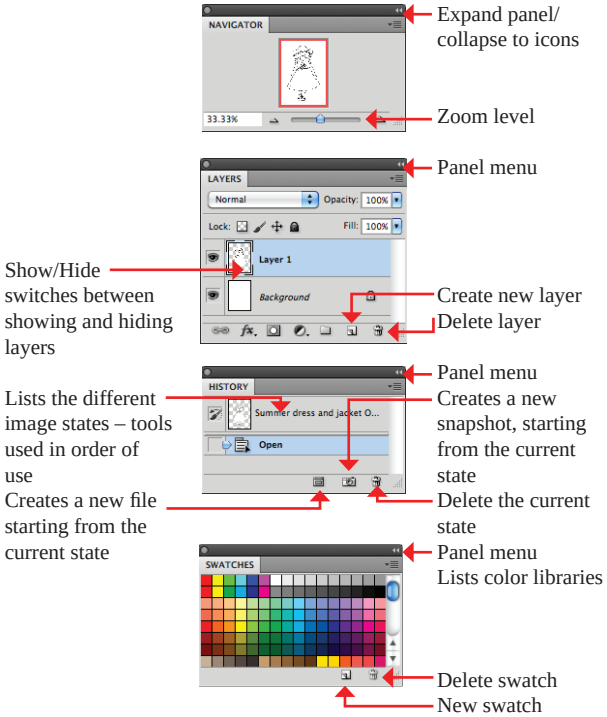
❶ Follow steps 1–4 on page 4 under '*Saving a New File*
❷ Format: **Photoshop (psd)**
❸ **Save** the file

Step 3: Open the scanned illustration in Photoshop

- Click onto **File**
  ↓
  Open **Files of types: All Formats/ Enable: All Readable Documents or/and JPEG**
  Click onto your scanned file and **Open**
- You now have two files open

*It is advisable to save the file you are working on every **10 minutes** if you can* **(Ctrl S/Cmd S)**


Other open files
Arrange Documents: configures open files in different views (ref page 163)
Screen Mode: configures screen in different views
Menu bar
Current working file name
6 Select Workspace
1
5 Application Bar
4 Options
2 Open panels
Tools Panel: tools can be displayed side by side or a single column as in this view
Rulers: guide lines can be drawn out from rulers
3 Close or Close Tab Group



- **Navigator**
  You can drag the zoom slider to the right to zoom in, or to the left to zoom out. Each time you change the zoom level, the view in the Preview area updates
  Drag the red View box in the Preview area to move quickly to different areas of the image
- **Layers**
  Layers allows you to keep various images separate so that you can make changes without deleting or changing the underlying pixels. Each additional layer you create increases the file size of the image
- **History**
  Every time you modify your image this is recorded in the **History** panel as a history state. The **History** panel records the last 20 states of the image. To delete a **History** state, drag the state into the **Waste Basket** icon at the bottom of the panel
- **Swatches Panel**
  This panel stores colour swatches

Set Up your Adobe Photoshop Workspace:

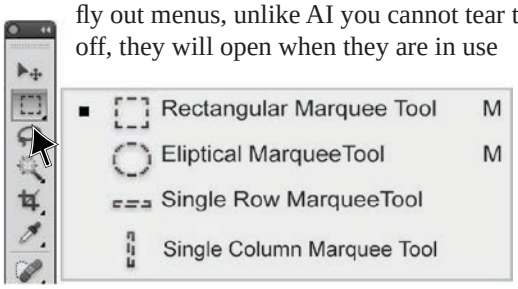
There are many new tools and features in Adobe Photoshop. In the following exercises you will be using the basic ones that are quick but effective if you want to produce a catalogue or story board. We have customised the workspace to include the panels we will be using.

1. Go to **Window** in the menu bar and select the following panels:
2. **Navigator**, **Layers**, **History** and **Swatches**
3. You can close all other panels by clicking onto the down arrow on the righthand side of the menu and going down the menu and selecting either **Close** or **Close Tab Group**
4. You should also select **Options** from the Window drop-down menu. The **Options** panel shows you the options of the current tool in use
5. You can also click onto **Applications Bar**, this will show you what applications are available to you from within Adobe Photoshop
6. Once all of this is established you can save your workspace:
   - Click onto the down arrow to reveal the drop-down menu and select **New Workspace**, this will allow you to save this particular workspace with your name.
   - Having customised your workspace you can choose to go back to the **Essential** workspace whenever you choose

Tools Panel:

*The following is an identification of the different tools in the **Tools Panel** and where we apply the tools in this book. Please note only tools demonstrated in this book are represented.*

- As in Adobe Illustrator some of the tools have fly out menus, unlike AI you cannot tear these off, they will open when they are in use



Tools Panel (cont'd):

Move Tool (V): You can move everything in a layer with this tool or you can select an object with the Marquee tool and then move it with the Move Tool

Rectangular Marquee (M)

Elliptical Marquee (M): allows you to draw a rectangle or an ellipse over the area you wish to select, to move, cut out or delete

Magic Wand (W): selects continuous areas of colour, based on a *Tolerance* setting

Quick Selection (W): this tool quickly *paints* a selection using an adjustable round tip

Lasso (L): allows you to use the cursor freehand as if you were drawing with a pen. This option works best with a stylus pen

Polygonal Lasso: works by clicking onto the work area, moving the cursor and clicking again. Continue until you have defined the area you want to select. Click back at the start point to close the shape

Patch Tool (J): the **Patch Tool** lets you repair a selected area with pixels from another area

Crop (C): allows you to crop unwanted areas of an image and reduce the file size

Eyedropper (I): the **Eyedropper** tool samples colour from the active image or from anywhere else on the screen

or **Brush** or **Pencil (B):** the **Brush Tool** and the **Pencil Tool** paint the current foreground colour on an image. The Brush tool creates soft strokes of colour. The Pencil tool creates hard-edged lines

Clone Stamp (S): allows you to copy part of an image and apply it to another part of the image at the same time

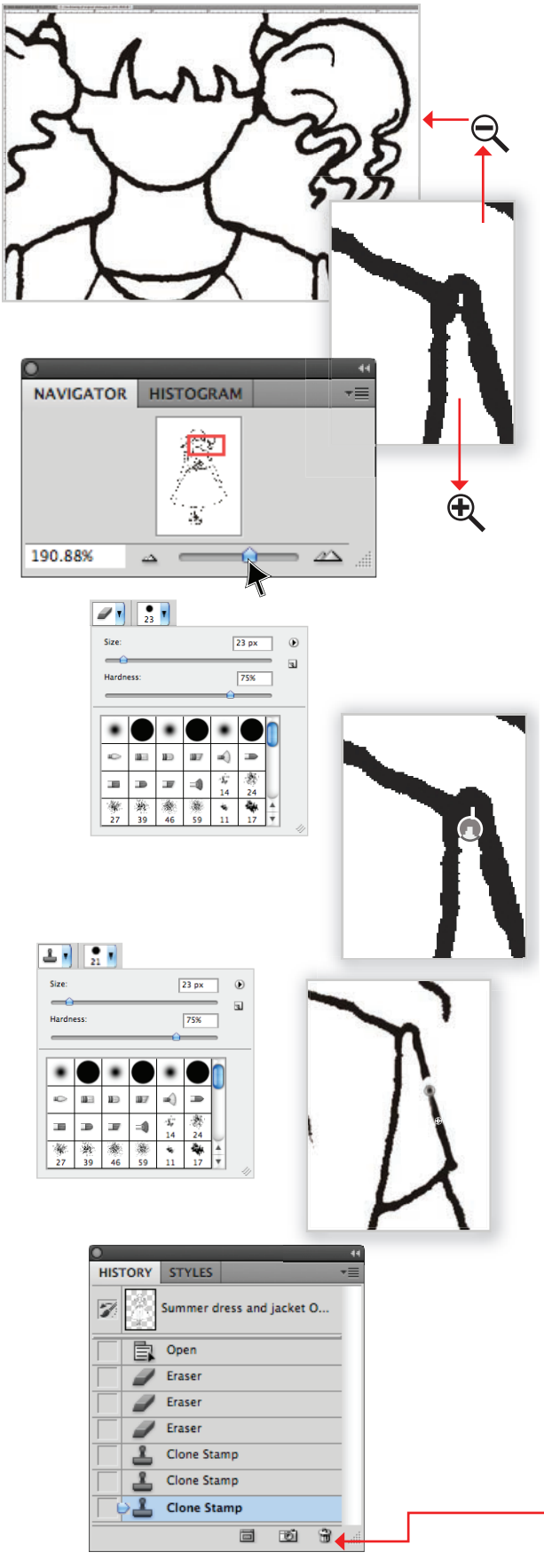
Eraser Tool (E): This will rub out parts of an image

Paint Bucket (G): Drops a fill colour into a closed area

Gradient (G): Fills an area with a gradation of colour

Hand Tool (H or space bar): use the **Hand Tool** in addition to using the scroll bars to move around the image

Zoom (Z): allows zooming in and out of your image

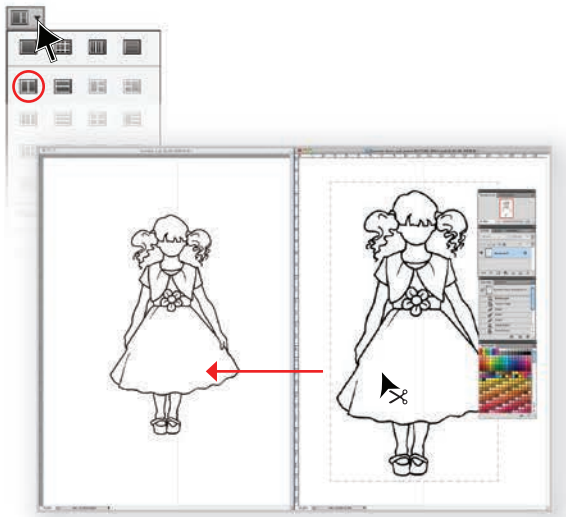


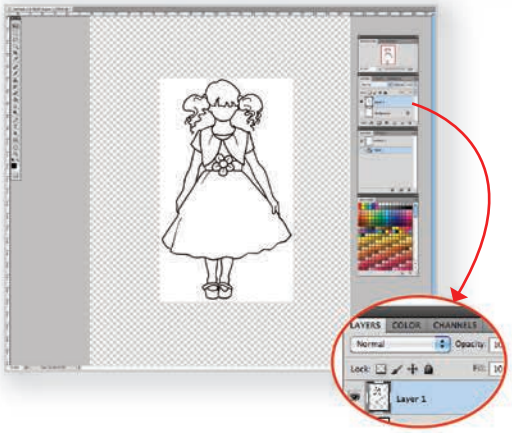
Step 4: Refine and clean the scanned illustration

Zoom Tool (Z)
Eraser Tool (E)
Clone Stamp Tool (S)

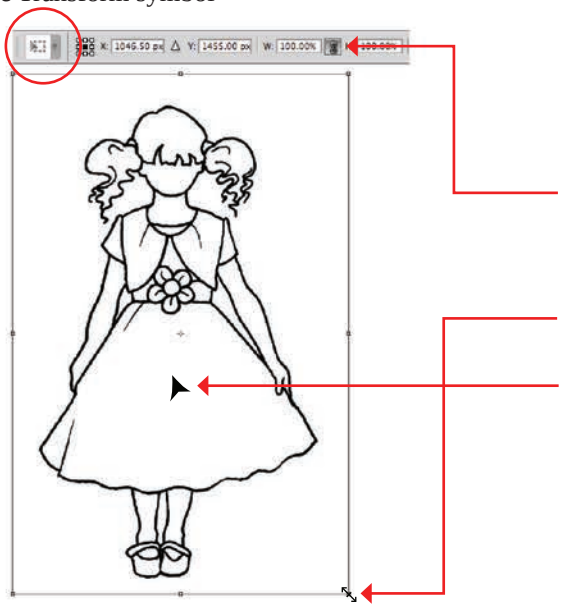
You have a new file open and the scanned illustration file open. We are going to clean up the scanned image and once this is done we will copy or drag this image into the new file.

- It is best to zoom up very close to the drawing when you do this
- **Zoom (Z)** right up to the image and either use the **Eraser Tool (E)** or the **Clone Stamp Tool (S)**
- When the image is enlarged you can move around the screen with either the scroll bars, the **Hand Tool (H)** or the **Navigator** panel, use the slider to zoom in and out
- **Zoom Tool (Z)**: Select the **Zoom Tool (Z)** and press and hold down the right mouse button and move it over the image, moving the mouse down will enlarge the image ( ) and up will diminish the image ( ). You will need to use the space bar, activating the **Hand Tool** to navigate around the image **(Apple OS)**
- Select the **Zoom Tool** and marquee over the area you want to zoom up to **(Windows OS)**
- **Eraser Tool (E)**: The size of the **Eraser Tool (E)** can be varied either in the **Options** bar where the hardness and size of the eraser can be varied. The size is denoted by a circle on your artwork, pressing down will activate the eraser
- **Clone Stamp Tool (S)**: You can use this tool to copy a line. Select the **Clone Stamp Tool (S)** and 'target' an area to 'clone' by holding down the **Alt** key and simultaneously clicking onto the target area, release the mouse and move up to the area where you would like to draw the 'cloned' line, within the brush size indication you will see a preview before you click and hold down the mouse to draw
- Each operation or *state* you perform will be recorded in the **History** panel
- By default, when you open a document **Photoshop** creates an opening snapshot of the image
- **Active State:** this is usually the last operation performed and is highlighted in the panel. By selecting an earlier state and going on with a new operation, you can effectively undo all subsequent operations. You can delete a **History State** by dragging it into the delete bin ( )





Free Transform symbol



!REMEMBER!

Save the file: **Ctrl S**/**Cmd S**

Step 5: Copy the illustration into the new file you have just created

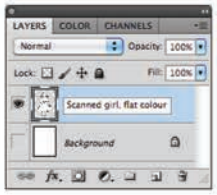
Move Tool (V)
Marquee Tool (M)

- Now that you have cleaned and edited your scanned illustration you can copy this image to the new file you created at the start of this exercise
- We will select the image and drag it into the new file. To drag the image both files must be open in floating windows next to each other
- Go to **Arrange Documents** in the **Options** bar and click onto the down arrow
- A window with different views will come up, click onto the *'2 Up'* view. Both files will be in floating windows next to each other
- Select the layer the image is on in the **Layers** panel, in the scanned illustration file it will be the only layer (*Background*). Marquee over the illustration and click onto the image with the **Move Tool (V)** and drag the image from the scanned original file to the new file
- There is a *New Layer*, **Layer 1**, in the file
- The best results will occur when the new file resolution and the scanned image resolution are the same size to maintain the clarity and integrity of the illustration. We have scanned our illustration at 300 dpi (ref page 36, scanning) and the new file we created was 300 dpi. The instructions were to create the illustration to suit an A4 portrait layout
- It is still possible to scale the image in the new file. Click onto **Edit**

↓

Free Transform (Ctrl T/Cmd T)

- The **Free Transform** options are now in the **Option** bar. Select the **Link** symbol ( ) to ensure that the width and height are relatively proportioned when you transform the image
- Move the cursor over any of the corner boundary box anchors and a double arrow will appear, hold the left mouse button down and drag to scale the image
- Move the image by placing the cursor in the centre of the transformation boundary box and drag it into position
- Once you are satisfied with the results complete the task by pressing the **Enter**/**Return** key Alternatively double-click inside the transformation boundary box
- The illustration is in a new layer and you are ready to start colouring the image



Step 6: Delete the background in the new layer

Magic Wand Tool (W)

- As each new layer is created it is best to identify it with a name:
  Double-click inside the layer name box and re–name the layer, **Scanned girl, flat colour**

Delete the area around the illustration in this layer:

- To begin, turn the **Background Layer** off by clicking onto the eye symbol ( ) next to it
- This will leave the next layer, **Scanned girl, flat colour**, on a floating transparent background
- Click onto this layer to make sure it is selected

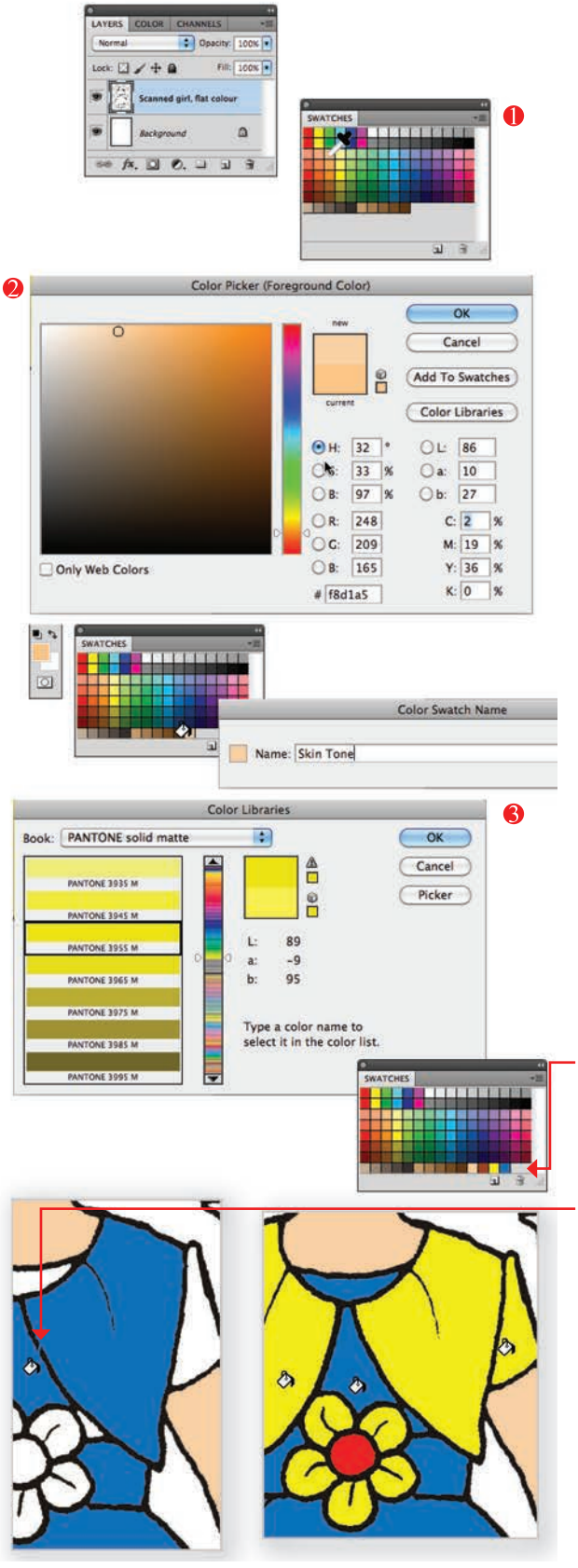
Tip: *always make sure you are in the layer you want to change before you do anything in PS.*

- Select the **Magic Wand Tool (W)**, check the **Options** bar information:
  Tolerance should be **10%**
  Anti–alias should not be selected ( ), this blurs the edges and makes colour changes at a later stage difficult
  Contiguous should be selected ( ) for this step as we only want to delete colour outside the figure not inside
- Click onto the area surrounding the illustration, hold **Shift** key and click onto the negative areas within the illustration such as the space between the legs and the arms and the body. Note how a + symbol sits next to the **Magic Wand** symbol when you hold down **Shift,** pressing **Shift** will select more than one area at a time
- Now press the **Delete** key to delete this colour
- The figure is now ready to be filled with colour

Step 7: Colour fill

Paint Bucket Tool (G)

- The illustration is floating on the top layer
- You can change the colour of the background layer by selecting that layer
- Select a colour from the **Swatches** panel, now select the **Paint Bucket Tool (G)** from the **Tools** panel and hover the tool over the background area and click to drop the colour into the **Background** layer



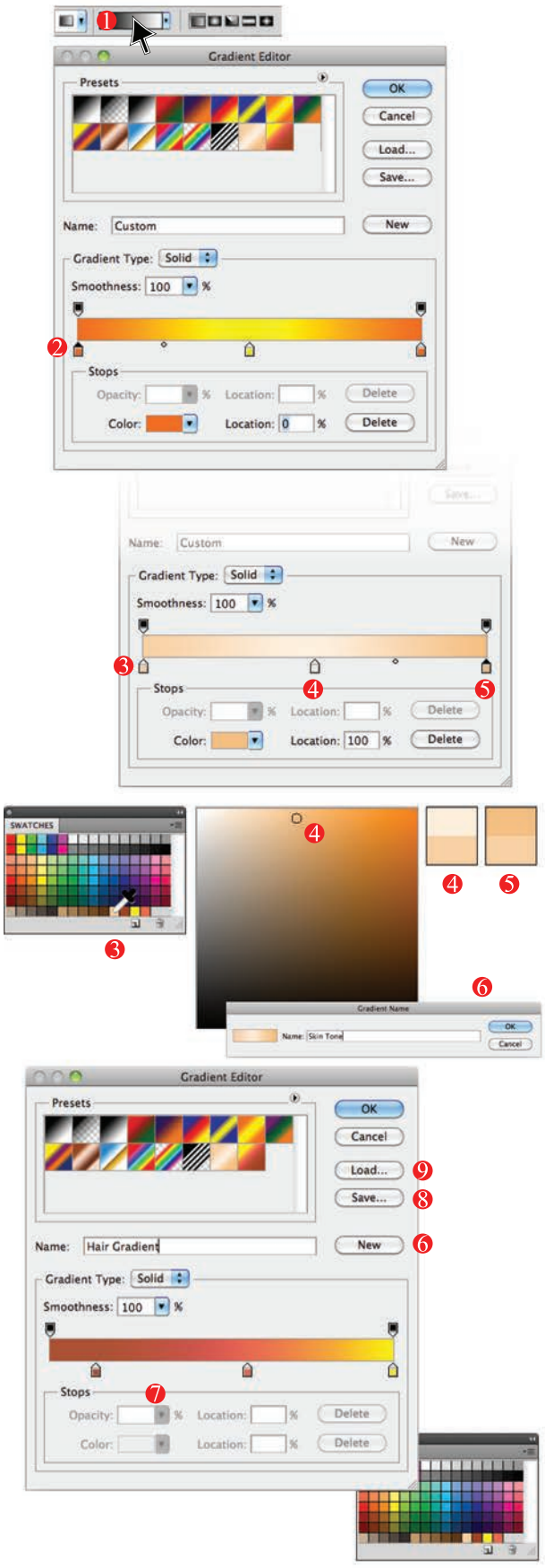
Step 8: Add flat colour to the illustration

Paint Bucket Tool (G)

- First select the layer that the illustration is on (Scanned girl, flat colour)
- Select your colours, you can choose colours in a few different ways:
  - ❶ As you did with the background select colours from your **Swatches** panel. We have selected a flesh tone from the **Default** colours. The colour was too peachy so we adjusted it with the **Color Picker** option box
  - ❷ You can open the **Color Picker** by clicking onto the foreground colour in the swatches at the bottom of the **Tools** panel. This opens an option box that will give you the opportunity to select from a range of colours. You can then add tints or tones to that colour. We have added a tint to the original flesh tone we selected, you will notice the swatch on the side that contains the *current* selection as well as the *new* adjusted swatch. Save the new swatch by closing the **Color Picker**. The new swatch is in the foreground swatch and you can now load the swatch by dropping it into the **Swatch** panel. You have the option to name the swatch now
  - ❸ In the same option box you also have access to **Color Libraries**. The standard print-based colour libraries are listed when you click onto the **Color Libraries** drop-down menu options

- Select all the colours to fill this illustration

- Select the **Paint Bucket Tool (G)**, hover over the area to be filled and click
- If you have any holes in the lines of the drawing the colour will 'bleed' into another area
- You can block that hole and fill the area again (ref page 162)
- Once you have selected the colours and filled each area you can deselect the **Paint Bucket Tool** by selecting the **Move Tool (M)**. In Photoshop we use the **Move Tool (M)** as the default tool
- If you did not save a previous colour used into the **Swatches** panel all you need to do is **Eyedrop** that colour to select it and then go back to the **Paint Bucket** tool



Step 9: Creating a customised gradient swatch

Gradient Tool (G)

- Create a new layer for the hair and skin tones, name it accordingly

Gradient panel: Once you have selected the **Gradient Tool (G)** the **Options** bar will display the tool, a graded bar consisting of the colours in the *Foreground* and *Background* swatches in the Tools panel and the option of choosing Linear, Radial, Angle gradient, etc. styles

❶ Rest the cursor on the inside of the gradient sample in the **Options** bar and click to reveal the **Gradient Editor**. Here we can create new gradients

❷ Select the *Stop* (▲) below the gradient bar, note how the colour of the point changes from white to black and the present colour shows up in the **Stops** section of the **Gradient Editor**, you can edit or change the colour

❸ We have selected the flesh colour created on page 165 for the first stop by clicking onto that colour in the swatches panel

❹ Moving to the middle *Stop* we have selected the colour again but have double-clicked this *Stop* to bring up the colour picker where we have changed the colour to a lighter tint

❺ The third *Stop* has used the same flesh colour, but this time it is darker

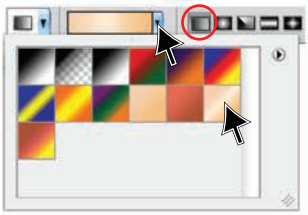
❻ Once the gradient is created, click onto **New** and name the new gradient, *Skin Tone*

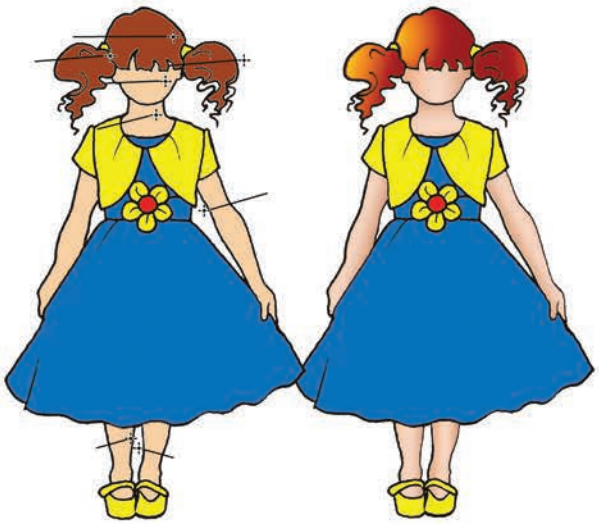
❼ For the hair gradient we have used a combination of three colours and moved the *Stops* along the slider to get more brown into the gradient. Click onto **New** and name the new gradient, *Hair Colour*

If you are printing the illustration out on paper always check the colours with the printer and paper medium you are using as these impact on the colour.

❽ You can save these two new gradients into a library by clicking onto **Save** in the **Gradient Editor**. You will be directed to a gradient file directory where you can type in the new name of this file and save it

❾ This library can be opened another time by clicking onto **Load,** this will open up all your saved gradient libraries. You can add to this library each time you create a new gradient and save over the first library to save the changes





Step 10: Apply the gradient swatch to the skin and hair

Magic Wand Tool (W)
Gradient Tool (G)

- Create a new **Layer** by clicking onto the **Create a new Layer** (▣) icon at the bottom of the **Layer** Panel. Rename this new layer to identify the task, *Flesh and hair shading*
- Click back onto your original drawing layer in the **Layers** panel

Note: this is your master layer for all future layers, be careful not to edit this layer, always remember to go back to the layer you are working in.

- Select the **Magic Wand Tool (W)**, check the **Options** bar information (ref page 164) and click onto one of the limbs
- Once this is done select the new layer, *'Flesh and hair shading'*
- Click onto the **Gradient Tool (G)**
- Click the down arrow on the side of the gradient sampler in the **Options** bar to reveal the gradient swatches
- Select the new *Skintones* gradient and the **Linear** gradient option to the right of the sampler

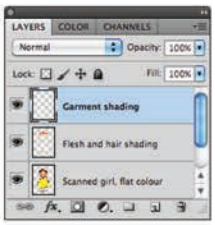
- Click and drag the cursor over the selected area. Whilst dragging over the area, you do not have to stay within the selected area, you can start by clicking outside the area to achieve the desired effect
- Be careful to pay attention to the light source, in this illustration it is on the left
- Deselect the area **Ctrl D/Cmd D**
- Go back to the *'Scanned image with colour'* layer again, using the **Magic Wand Tool (W)** select another area

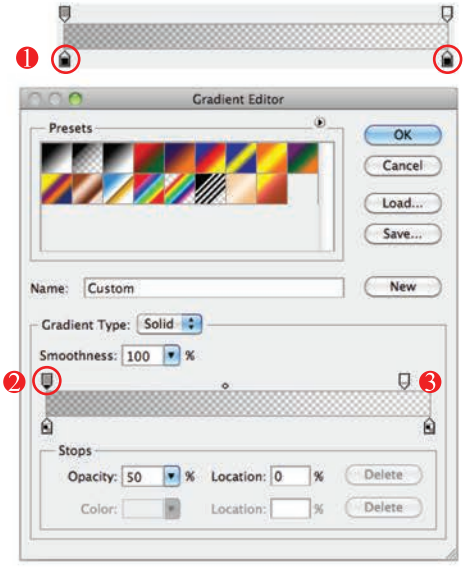
- You will have to add shading to each of the skin-coloured areas. Each time select the area in the first layer and then add the gradient in the next layer. Experiment with the various gradient options and the angle you drag the **Gradient Tool**
- Following are the other four options:

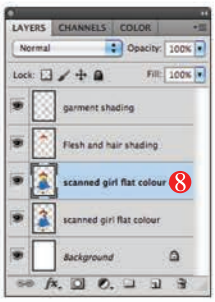
- **Radial** **Angle** **Reflected** **Diamond**

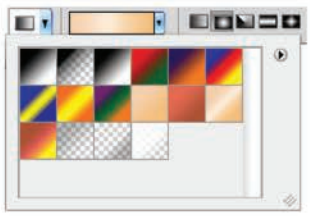
!REMEMBER!

Save the file: **Ctrl S/Cmd S**









Step 11: Gradient swatch with transparency

Gradient Tool (G)

- Create a new layer for the garment shading and name it accordingly

Gradient panel: Editing the transparency values of a gradient swatch

1. Make sure that there is the same colour in both the colour swatches on the gradient slider ( )
2. Select the *Stop* ( ) above the gradient bar, note how the colour of the point changes from white to black and the present colour shows up in the **Stops** section of the **Gradient Editor**, you can edit the transparency value of the opacity to 50% ( )
3. Moving to the lefthand *Stop* change the opacity value to 0% ( ). Note how the stops change colour to reflect the opacity value

4. Once the gradient is created, click onto **New** and name the new gradient, *Black or White opacity*
5. We have created a black and a white opacity
6. You can save this swatch library over the first swatch libraries, select **Save** in the **Gradient Editor** and save the library as the same name to add the new swatches to this library

The reason we use a transparency in the gradient is to allow you to create different colour combinations of the same styles and you will not have to re-create the gradient using specific colours to suit each colour combination.

7. Follow the instructions on page 167 to do the shading in the garments. Experiment with the *Radial Gradient*
8. We have illustrated a plain garment with the shading and a patterned garment with the same shading. Note the layer order and the new style added below the shading layers

When considering a print for your garment, inspiration can be found on the Internet. Log onto the Internet and type your criteria into your search engine, e.g. repeat pattern designs, the choice is endless. There are a few WARNINGS: all designs will have copyright issues. These are usually about permission for end use, check this before using the design. The other major issue will be resolution, these images are usually low resolution if they are free. When selected, either download file or copy the image into Photoshop. Alternatively scan in a piece of fabric.

Step 12: Select the colour to be changed on a scanned fabric

Marquee Tool (M)

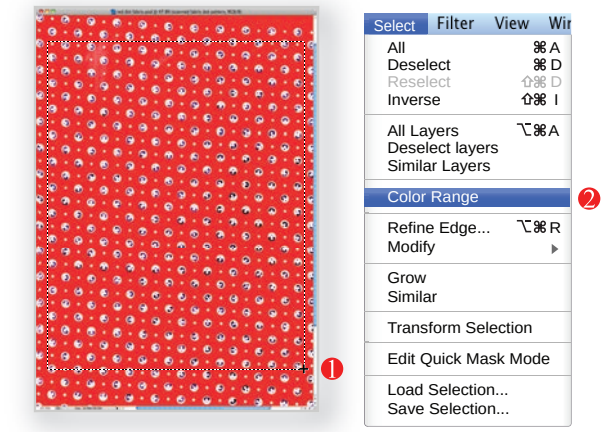
- Either method used, must be saved as a JPEG file
- Any changes to be made must be completed before you use the fabric swatch in your story board

- The following instructions will guide you through changing the background colour of a simple spot design:
- Open the fabric swatch file in Photoshop and make a copy of the file. Go to **Image** in the Menu bar

↓

Duplicate

- Close the original file and work on the duplicate file



❶ Marquee over the whole of the image with the **Rectangular Marquee Tool (M)**

❷ Click onto **Select** in the Menu bar

↓

Color Range

❸ A dialogue box will appear. Arrange your work area to be able to view the dialogue box and your image together

❹ Select the middle eyedropper (🔍) from the choice of three below the **Save** option. Click onto the scanned image with this to activate the options in the dialogue box

❺ Move the **Fuzziness** slider to **200** and the **Range** slider to **100%**

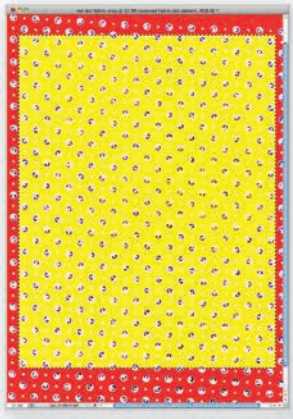
❻ Activate (◉) **Selection**

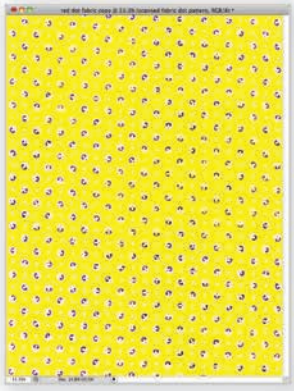
❼ Leave the **Selection Preview** on **None**

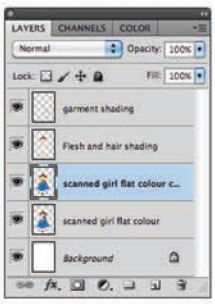
❽ Note the lighter section in the preview image of the dialogue box, this is where you have clicked the eyedropper. Continue to click onto different areas of the scanned fabric until as much as possible of the grey shaded area turns white

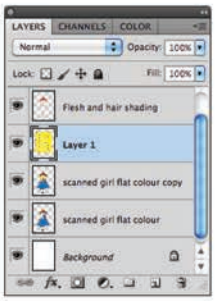
❾ Once the background is all selected click onto **OK**

COLOUR CHANGE SCANNED FABRIC









Step 13: Change the colour

Brush Tool or **Pencil Tool** **(G)**
Crop Tool **(C)**

- Once you have clicked **OK** the **Color Range** dialogue box closes and you will notice that all the background colour is selected
- Select the new background colour ( ) from the Swatches panel and click onto either the **Brush Tool** or **Pencil Tool** **(G)**. Set the size of the **Brush Tool** to a large size by pressing the brackets keys, the left bracket **([)** for larger and the right bracket **(])** for smaller
- Colour over the selected area

- Click onto the **Crop Tool** **(C)** and marquee over the newly coloured area and then crop the print
- Press **Enter** to finalise the action
- **Save** the file: *Fabric Scan*

Step 14: Copy the fabric into the storyboard file

Move Tool **(V)**
Marquee Tool **(M)**

- You will need to have both the new fabric swatch file open and the coloured illustration file open side by side (ref page 163, *floating windows, 2 Up*)
- Click onto the 'Scanned girl, flat colour' layer and make a copy of it by dragging it into the **New Layer** ( ) symbol at the bottom of the layers panel
- Click onto the layer that the fabric is on in the changed fabric colour file
- Marquee with the **Marquee Tool** **(M)** over the whole swatch and then select the **Move Tool** **(V)** to copy the fabric to the illustration file

*Note:the copied fabric will immediately create a new layer above the layer that was **selected**, in this case the 'Scanned girl, flat colour, copy'. If this did not happen simply click onto the fabric layer and move it into position, above the copied flat colour layer as illustrated.*

- You can scale the fabric swatch to suit the size of the illustration (ref page 163)

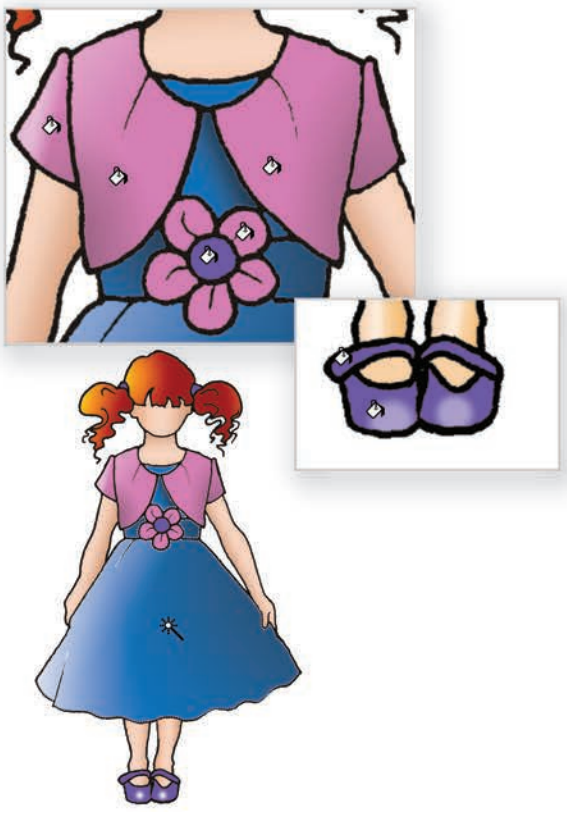
Step 15: Sample colours from the scanned swatch

Eyedropper Tool (I)
Paint Bucket Tool (G)

- Zoom in close to the scanned swatch and sample two colours from the fabric with the **Eyedropper Tool (I)**
- You can toggle between the *Foreground* colour and the *Background* colour by pressing 'X'
- Both the colours we have selected look a little dirty so we have double-clicked onto the colour to open the colour picker (ref page 165) and have brightened up each of the colours

- Once that is done the new swatch was loaded into into the **Swatches** panel

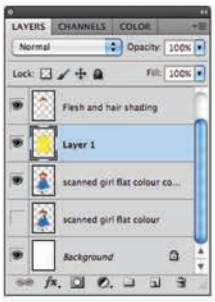
- Click back onto the 'Scanned girl, flat colour, copy' layer and fill the areas with the new colours with the **Paint Bucket Tool (G)**
- Hide the fabric layer, Layer 1 ( )

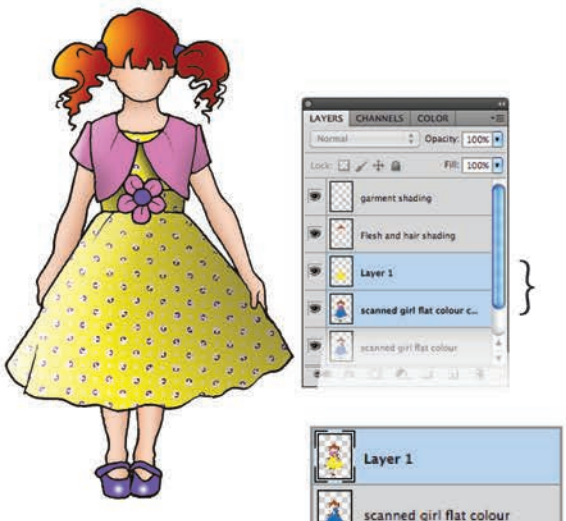


Step 16: Select a single colour on a layer

Magic Wand Tool (W)

- Select the **Magic Wand Tool (W)**, check the **Options** bar information:
  Tolerance should be **10%**
  Anti–alias should not be selected ( ) (ref page 164)
  Contiguous should not be selected ( ) for this step as we want to select all the blue on this layer





Step 17: Filling the dress with the scanned swatch

- Click back onto *'Layer 1'*

- Go to **Select** in the menu bar
  ↓
  Inverse
- This will select the areas outside the initial area selected

- Press **Delete** to delete the scanned swatch outside the dress area

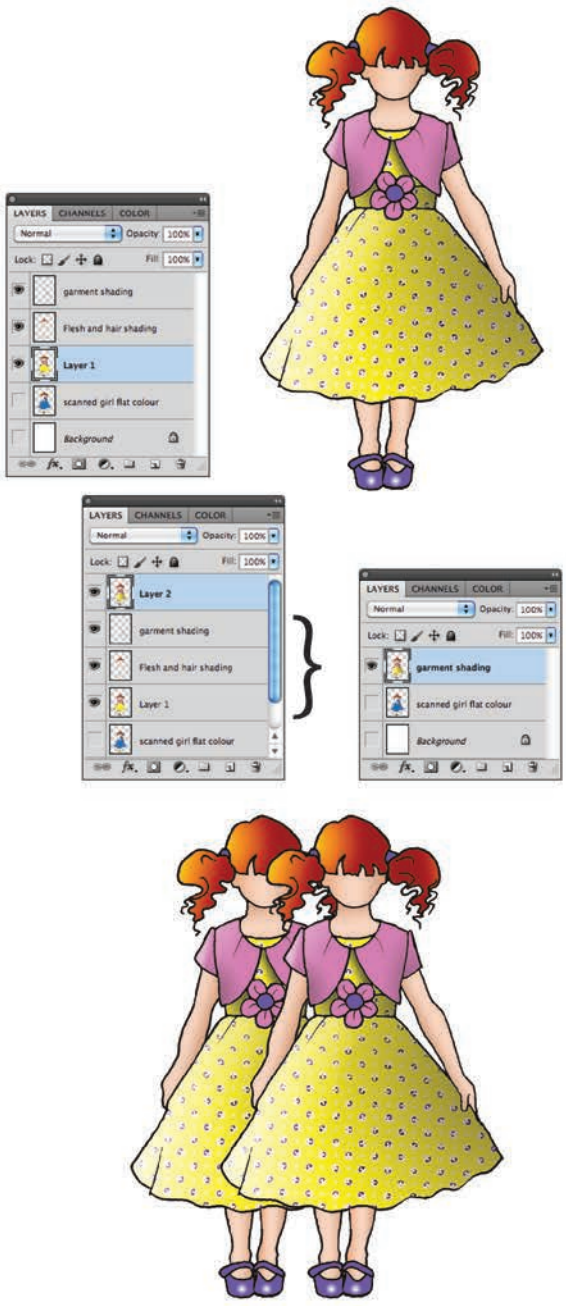
- Now you can *merge* the two layers
- Select the *'Scanned girl flat, colour layer'* hold **Ctrl**/**Cmd** key down to multi select and click onto *'Layer 1'*

Merge Layers:

- Go to **Layers** in the menu bar
  ↓
  Merge Layers Ctrl E/Cmd E

!REMEMBER!

Save the file: **Ctrl S**/**Cmd S**



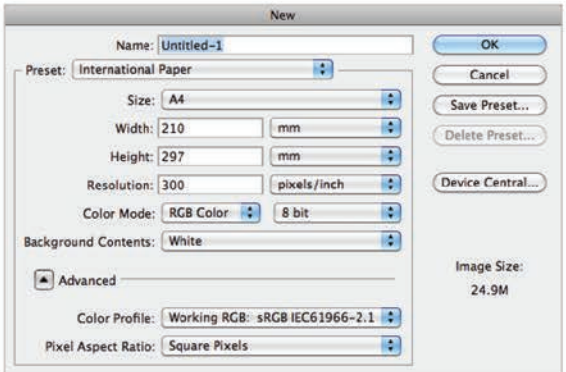
Step 18: Merge layers and make a copy of the illustration

Move Tool (V)

- At this stage the illustration is made up of several layers

The following instructions will guide you through merging selected layers onto a new layer whilst still keeping the original separate layers:

- To **Merge Visible** layers you can go through the menu options (ref page 172), but we want to merge visible *AND* create a copy (‘*merge and stamp layers’* ref *Photoshop Help menu*), this can only be done with keyboard shortcuts
- Prepare your Layers panel. We have hidden the layers we do not want to include in this merge, the ‘*Background’* layer and the ‘*Scanned girl, flat colour’* layer, by clicking onto the *Hide* and *Show* eye symbol (–) next to the layer in the **Layers** panel. Once this is done Click onto the keys **Shift Ctrl Alt E**/**Shift Cmd Alt E**
- Using the **Move Tool (V)** drag the merged image aside. You now have two images, one several layers and the other image is made up of one layer (this image will be difficult to edit, this is why we keep a copy of the separate layers)
- The original image and its layers are saved at this stage for future reference if needed. Too many layers will increase file size and can slow down the program and therefore it is recommended that these layers are deleted at a later date when not needed
- **Save** this file and leave it open for the next steps



Step 19: Select a photo and open a new file

- It is essential that the photo used for the background is chosen carefully to create the mood intended
- Open the photograph file in Photoshop
- Create another new file (ref page 159)
- For this story board we are using a portrait orientation
- **OK**
- **Save** this file and name it
- You now have three files open in one window

Step 20: New view and move the photograph and illustration to the new file

Move Tool (V)

It will be easier to move or copy the images from one file to another with each of the three files in floating windows.

- Change the view to *3 Up* (ref page 163), it would be easiest to have the layout of the three files as illustrated
- Click onto the photograph with the **Move Tool (V)** to select it and move it over to the new file
- Do the same with the merged illustration layer in the figure file
- Once the three files are assembled in the new file, there is no need to view the photograph and figure files
- With the new file selected, click onto **Arrange Document** in the **Options** bar and select **Consolidate All**
- Scale both images to suit the layout (ref page 163)
- We would like the photograph to go the full width of the page so we have duplicated it
- You could use a number of methods to achieve this end:
  a: stretch the photograph across the page – not appropriate if there is a figure, or in this case the bicycles
  b: use the **Clone Stamp Tool (S)** to duplicate selected areas. (The **Clone Stamp Tool** is used in the next story board to remove parts of an image, ref page 178)
- Hide the layer that the illustration is on (ref page 173)

Copy an image in the same layer:

- Marquee over the photograph with the **Marquee Tool (M)**
- Click onto the **Move Tool (V)** and hold the **Alt** key down until you see the double arrow, move the image over to the side, we have lined the shadow of the sidewalk up to make it continuous

❶

a: *works like a pencil, just draw around the area you wish to select and it will close the shape once you release the cursor*

b: *works by clicking from anchor point to anchor point in straight lines. To close a shape either click back onto the start point or press* **Enter**

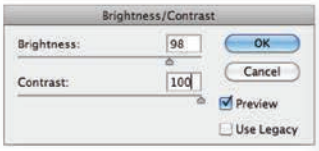
❷

❸

❹

❺

❺



❻

Step 21: Edit the photograph to suit the layout

Lasso tool (L)

- We will further edit the photograph softening the edges using the **Lasso tool (L)** to select the edge of the photograph

❶ The **Lasso Tool** is another way to select areas of an image, as was the **Quick Selection** and **Wand Tool**. We would recommend two of the three variations of the **Lasso Tool**:
a: the **Lasso Tool** ( ) allows you to use the cursor freehand as if you were drawing with a pen, a stylus pen is beneficial here
b: Polygonal Lasso (**)** works by clicking onto the work area, moving the cursor and clicking again in short straight lines until you have selected your area

❷ Select the **Lasso tool (L)** and check the finish you require in the **Options** bar. For this image we have selected **Anti–alias**, to blur the edges slightly when working with fine gradation of colour as in a photograph. The **Feather** is set at 50px to achieve the fade–out effect at the edge of the photograph

❸ Starting at any point of the photograph draw around the area you want to retain, ending back at the beginning. Note that even though the photograph layer is being edited the illustration layer is visible. This enables you to view the composition as a whole

- If at any stage you are not happy with the shape, click outside to deselect and start again

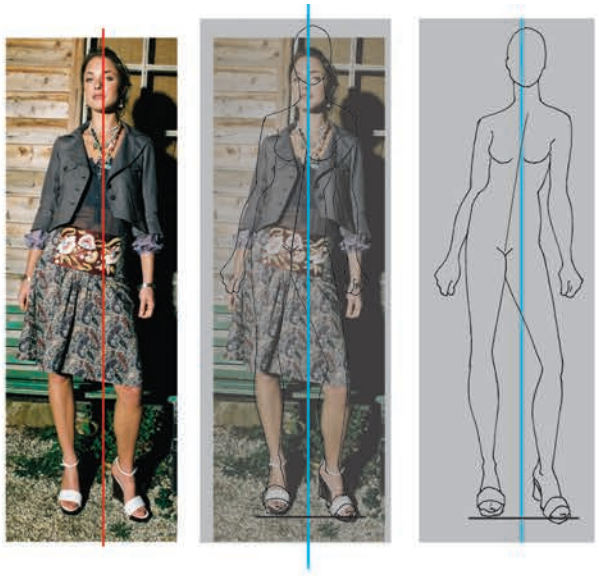
❹ We then select **Inverse** (ref page 172) and press the **Delete** key to delete the edges of the photograph

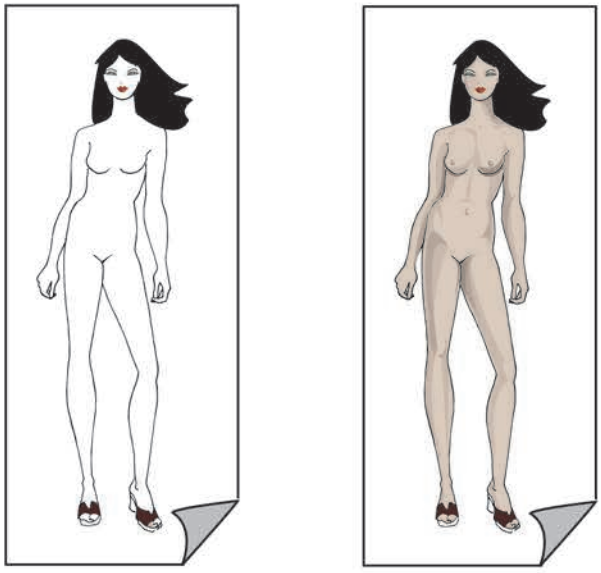
❺ In this example the background photograph is quite dark for the overall composition. There are many methods that can be used to change this

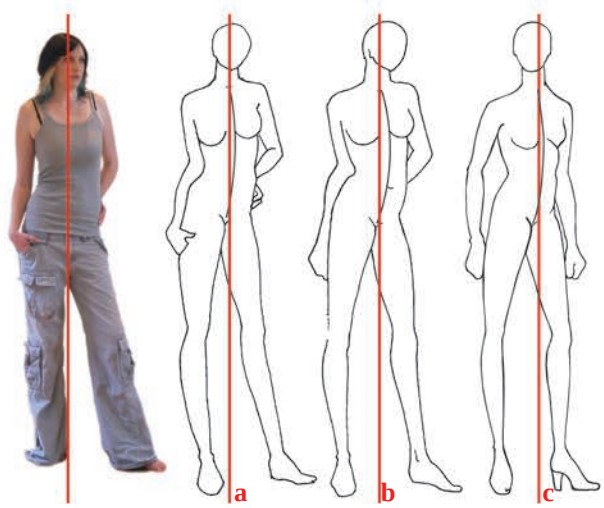
- To achieve the result in our example, select **Image** in the **Menu** bar and from the drop-down menu select **Adjustments** → **Brightness/Contrast**. Keep **Preview** ticked ( ) and adjust the brightness and contrast on the slidebar until it suits the composition

❻ The lips were added once the composition was completed to tie in with the overall mood of the storyboard. Like the croquis, a library of scanned features has been saved for future reference. The JPEG file has been copied and pasted into this file and positioned and scaled to the desired size. The new layer is then merged with the figure layer

FEMALE CROQUIS DEVELOPMENT – HAND DRAWING







Hand Trace the Figure and Elongate:

- The technique used to develop the female croquis is identical to those used for the male croquis with two exceptions, the figure will be slender and more leggy

- As fashion changes, different areas of the body are emphasised
- For example:
  High-heel shoes – longer legs
  Fur or roll collars – longer neck
  Padded shoulders – wider shoulders
- Whatever proportion is used, it is essential to draw in the **Balance Line**

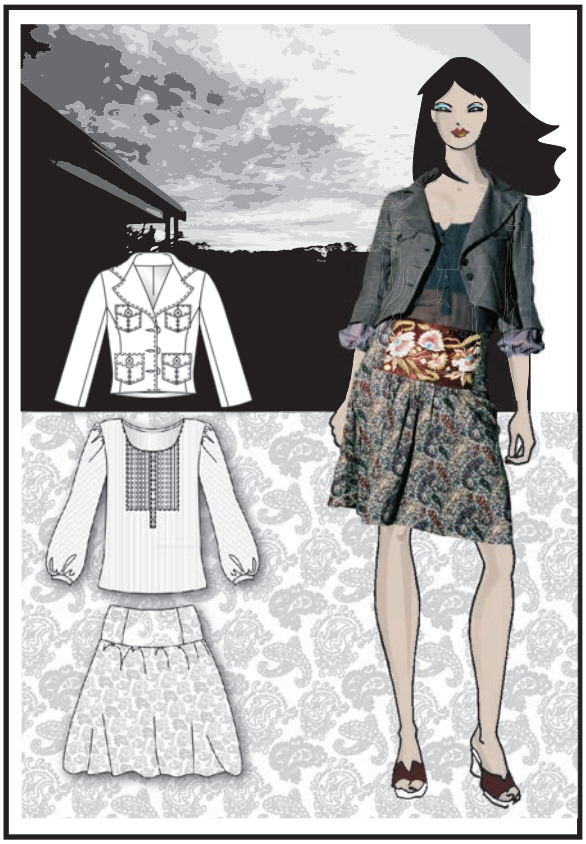
- Refer to pages 138 to 140 for drawing instructions

- You can add to your library of croquis by using your original croquis as a reference. The examples shown here are all identical proportions and slight variations to the movement through the torso. The main change is the leg positioning and thus the weight of the body changes

  a: The weight–bearing foot is the closest to the **Balance Line** and in line with the **Pit of the Neck**
  b: The weight of the body is distributed between both feet with extra weight on the left ball of the foot.
  c: The weight of the body is evenly distributed between both feet

Save this file and name it ***Female Croquis Libary.***

STORY BOARD 5 – ADOBE PHOTOSHOP AND ILLUSTRATOR

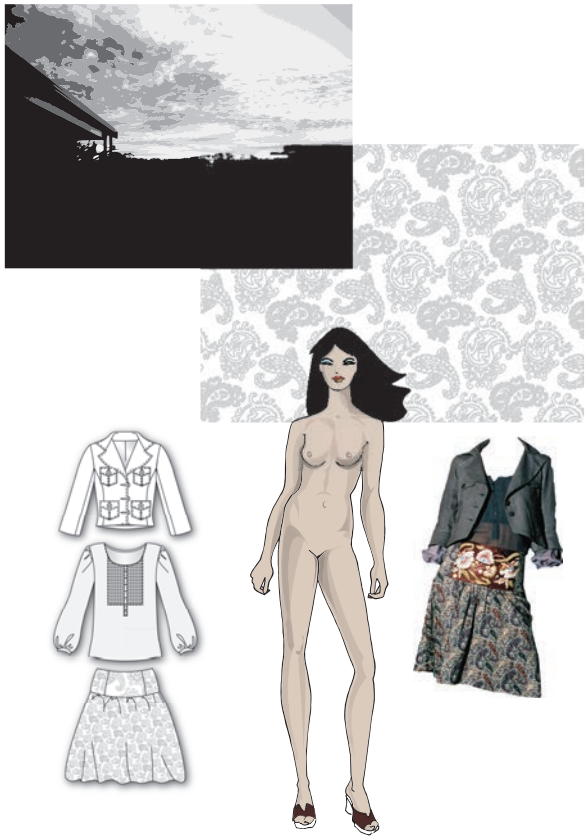


Creating Story Board 5:

Adobe Photoshop

Adobe Illustrator

- This story board is achieved using both **Adobe Illustrator** and **Adobe Photoshop**
- Each section is created as a separate file and then brought together in this composition as separate layers. This method is used due to the large size of the files



- **Layer 1:** Consists of the background photo taken with a digital camera and edited in Adobe Illustrator
- The image is traced and changed from a bitmap image to a vector image
- The Paisley pattern fill is created and applied as a block of colour
  Saved as: **Story Board 5 Fashion Illustration and Technical Drawing**

- **Layer 2:** Each technical drawing is created using information covered in the previous chapters
  Saved as: **Technical Drawing**

- **Layer 3:** Using the photo of the girl, the background is edited out in **Adobe Photoshop**. This is then opened in Adobe Illustrator and placed onto a croquis which has been previously developed
  Saved as: **Figure and garment**

*As each file is completed in Adobe Illustrator, save as an individual file, copy and paste it into the **Story board 4 Fashion Illustration and Technical Drawing** file.*

Note: Before pasting, create a new layer each time.

ADOBE PHOTOSHOP – DUPLICATE AND CROP THE NEW FILE

Step 1: Create a duplicate file

- Open the JPEG or TIFF file from the digital camera
- Immediately make a copy of the file by going to the menu bar and select **Image**

↓

Duplicate

- Close the original file

Step 2: Crop the image

Crop Tool (C)

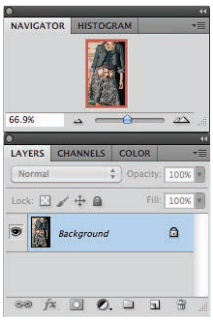
- Click onto **Crop Tool (C)** and drag the tool across the area you want to frame
- Double-click on the image or **Enter** to crop it
- Go to **File** in the menu bar and **save** the file
- **Save As (Shift Ctrl S/Shift Cmd S)**
- Name the new file **'Garment Photo'**

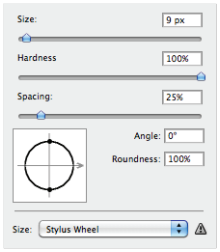
Step 3: Remove the jewellery from the photo

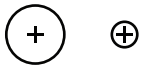
Clone Stamp Tool (S)

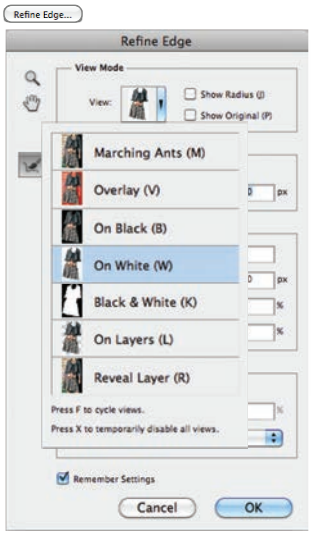
- Following the **Clone Stamp Tool** instructions on page 162 remove the jewellery
- When using the **Clone Stamp Tool** on a photograph it is best to use a brush with a softer blurred edge
- In this photo we had to be mindful of the pin-tucks on the front of the blouse following through over the jewellery
- Note how we have removed the jewellery from around the neck at the collar and cloned the light along the fold of the collar

It is very helpful to keep an eye on the preview within the brush.







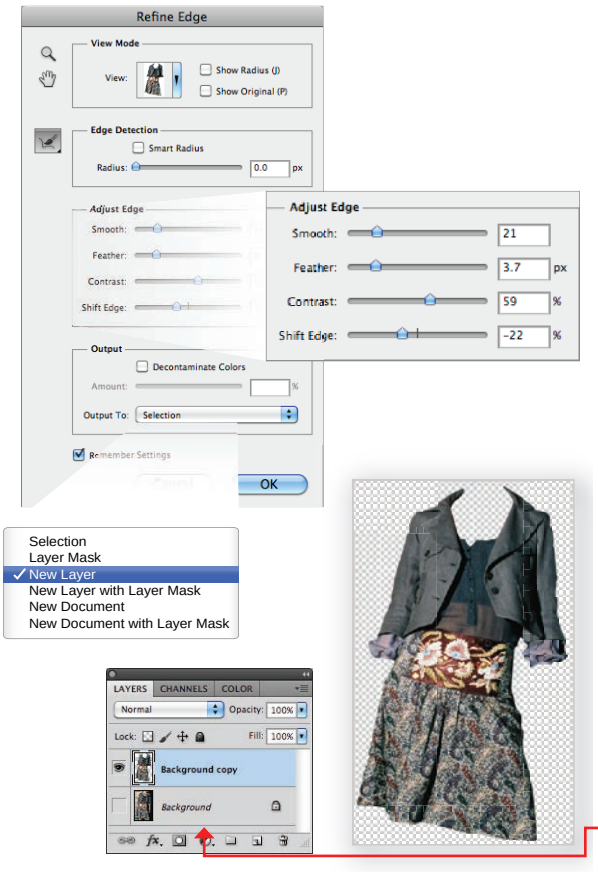


Step 4: Select the garments only

Quick selection Tool (W)

Before we can bring together the hand-drawn figure and the photo of the garment, we need to edit out the figure and background to separate the garments from the rest of the photograph.

- Use the Navigator panel to get a full view of the garment. The slider underneath the thumbnail zooms in and out of the image (ref page 160)
- Select the **Quick Selection Tool (W)** this is located in the fly-out menu under the **Wand Tool**. The **Quick Selection Tool** works like a paintbrush, but instead of painting a colour, you are selecting an area of the image
- *'Paint'* over the area you want to select. The tolerance of how much you select is linked to the brush size, a larger brush size has less tolerance and will pick up tones with less discrimination than a smaller brush size
- To change the brush size, click onto the **Brush** pop-up menu in the **Option** bar and type in the size or drag the slider. Alternatively press the **Right Bracket (])** to increase the **Quick Selection Tool** brush tip size and the **Left Bracket ([)** to decrease the brush tip size
- Paint inside the image. The selection grows as you paint following the contour of the image. We suggest that you paint over small areas and release your mouse between each one. When you start to use this tool the default selection is: *Add to selection* ( ) indicated by a + sign within the brush
- If an area is selected by mistake hold down the **Alt** key to change the **Quick Selection Tool** to *Substract from selection* ( ) indicated by a - sign within the brush and continue to paint the unwanted area to remove it from the selection
- Release the **Alt** key to go back to the default option ( )
- Continue painting with the **Quick Selection Tool** until you have covered all of the areas you want to select
- To improve the quality of the selection click onto **Refine Edge** in the **Option** bar
- A drop-down menu appears
- The selected image is highlighted, we have selected **On White (W)**
- You can view the alternatives, click onto the down arrow in the **View** mode and a drop-down menu appears



It is important to save the original file with the layer that you want to use in the story board visible and on a transparent background, as in the example.

This example shows the file opened in Illustrator and saved as directed above, i.e., the cut-out garments are on a transparent background.

This example shows the file opened in Illustrator and saved with a white background layer showing in Photoshop. This is not correct as we cannot put the figure behind the garments.

Step 5: Save **Quick Selection** option and save the file

The refine edge dialogue box does just that, it refines the edges of the selected area. You will now be able to view your cut-out photograph and adjust the edges to your satisfaction.

You have the choice to adjust the following options:

- **Smooth:** this will smooth out any bumps along the edge
- **Feather:** depending on the settings, this can vary from a mild blurring of the edges to an area of fading around the edges
- **Contrast:** this sharpens the contrast of the edge
- **Shift Edge:** will move the edge in or out from the original selection

- **Selection:** we have chosen **New Layer** This saves the selection onto a second layer with a transparent background. Hiding the original **Background** Layer. This is perfect for what we intend to do with this edited photograph
- **Save** the file

Step 6: Place the Photoshop file into Illustrator

*We **Place** the Photoshop file into the Illustrator file so that we can still edit that file if need be and it will change the image in Illustrator.*

- Open up a new A4 portrait file in Illustrator. Remember to **Show Grid** (ref page 6)
- Go to the menu bar **File**

↓

Place

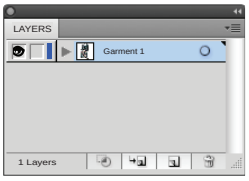
- This will open your directory. Select the photograph you have just edited and it will open up in the file you have just created
- You can scale it to suit your layout
- If you need to edit the file, simply go to the menu bar, click onto **Edit**

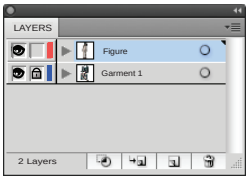
↓

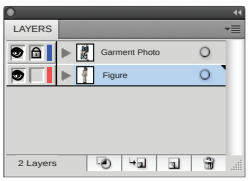
Edit Original

this will open the file in Photoshop

- Once the file is saved, the additional edits will appear in Illustrator
- Save this file *'Figure and Garment'*. Do not close this file







Step 7: Copy the figure into the new file

- Open up the file with the figure you developed earlier *'Female Croquis Library'* and select the female figure that was drawn from this photograph
- Marquee over the figure with the **Selection Tool (V)** and copy it **Ctrl C/Cmd C**
- Go back to your *'Figure and Garment'* file: you will see open files just below the **Control** panel (ref page 8) or go to **Window** in the **Menu** bar and at the bottom of the drop-down menu you will see all your open files listed, select the file you want
- Rename the first layer *'Garment 1'*
- Create a new layer and name it *'Figure'*
- With the figure layer still selected paste the figure from the croquis library **(Ctrl V/Cmd V)** into this file, do not deselect
- Lock the first layer *'Garment 1'* by clicking onto the second square in the Layers panel and a padlock will appear (ref page 39, About Layers)

Step 8: Scale the figure

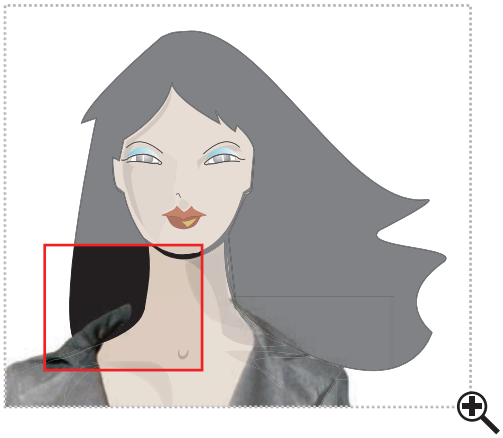
- Using the **Selection Tool (V)** and the **Shift** key, proportionately scale the figure to suit the photograph

Step 9: Change the layer order

- Click onto the layer *'Figure'* in the **Layers** panel. Hold the left mouse button down and drag this layer below the *'Garment Photo'* layer. This places the figure behind the garment

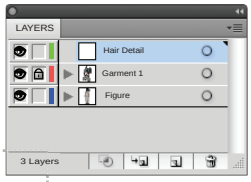
!REMEMBER!
Zoom For Details

HAIR DETAIL

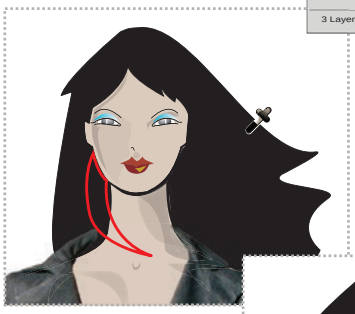


Step 10: Hair detail

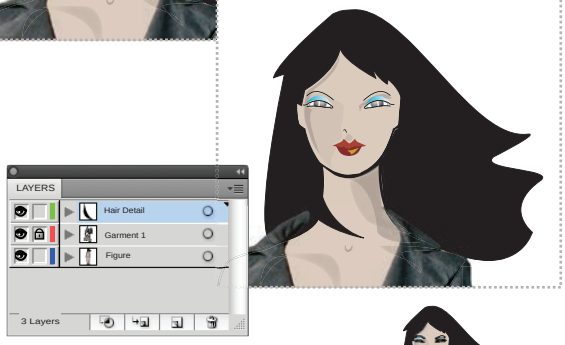
- **Zoom (Z)** up close to the croquis and garment photograph and look to see if you need to adjust anything to hide imperfections or things that do not match
- When drawing the female croquis the neck is made slimmer and longer. Because of this, the garment will sit away from the neck as in our example



- Select the layer with the garment photograph and then create a new layer (), the new layer will always be created above the selected layer
- Name the layer *'Hair Detail'*

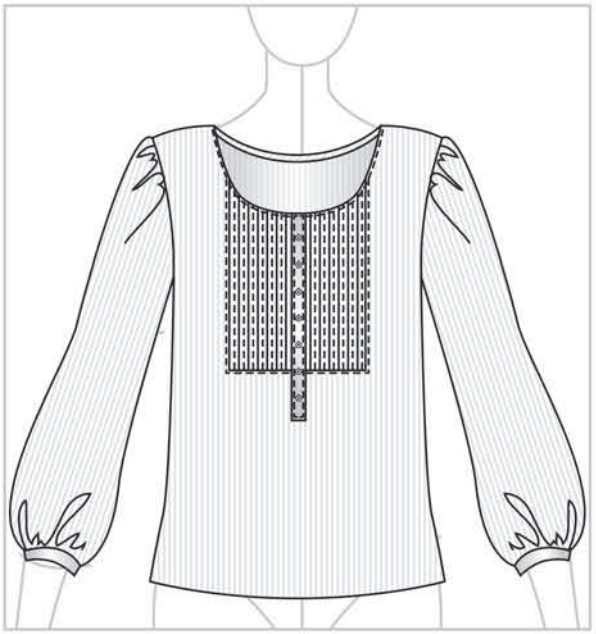


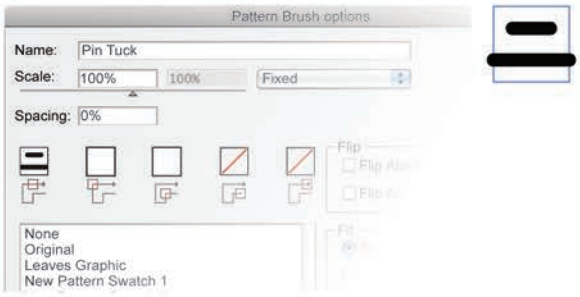
- Draw in a wisp of hair to cover the jacket collar that does not meet the side of the neck
- We have used a contrast stroke and no fill () to be able to see the area we want to cover underneath



- Once you are happy with the shape fill it. Select the shape, click onto the **Eyedropper (I)** and copy the fill and stroke of the rest of the hair

- The figure and garments are complete, **Save (Ctrl C/Cmd C)** this file





Black and White Garments with Improvised Fabric Pattern Fills:

Use the croquis on page 102 as a template to draw the styles
Save as: **Technical Drawing**

Jacket:

There are no features in the jacket that have not been covered in previous chapters. A list of operations featured in the jacket are as follows:

1. The **Pen Tool** was used to create the jacket. The right half was drawn first including the sleeve, stitch details (1 Needle top stitch brush) and half the collar, and then it was reflected to create the left half. The buttons on the rightside opening were changed to buttonholes
2. Create the back using the front as a guide

Remember to always create closed shapes even when you are working in black and white, you may want to fill the garment later. Working with the grid on will make you more aware.

3. The back view has a **Gradient Fill** to give the illusion of depth

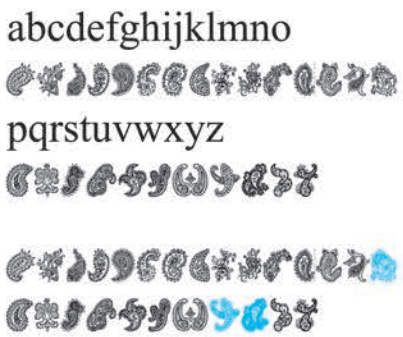
Shirt:

The shirt has pin-tucks, satin cuffs and buttonstand and the fabric is a shadow stripe

1. The satin cuffs and buttonstand were achieved using a **Gradient Fill**

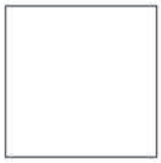
2. The pin-tucks are a pattern brush created with a dashed line and a solid line. You can use the 2 needle top stitch instructions, making the bottom line 2mm. Remember to create the mirror image brush (ref page 115, two-colour brush, this is the same principle). There is no need for corner tiles
- Place the first pin-tuck next to the buttonstand and the last pin-tuck at the edge of the yoke
- Use the **Blend Tool (W)** to create the four middle pin-tucks (ref page 58, Blend Tool, Specified steps)
- Reflect and copy the tucks to the opposite side
- Mask the tucks with the yoke, select the edge of the yoke with the **Group Selection Tool** and put a white fill and black stroke into it ( )

3. The shadow stripe is a simple vertical stripe pattern repeat. The stripe pattern repeat in the sleeves is rotated using the **Tilda** key (ref page 72)



Skirt:

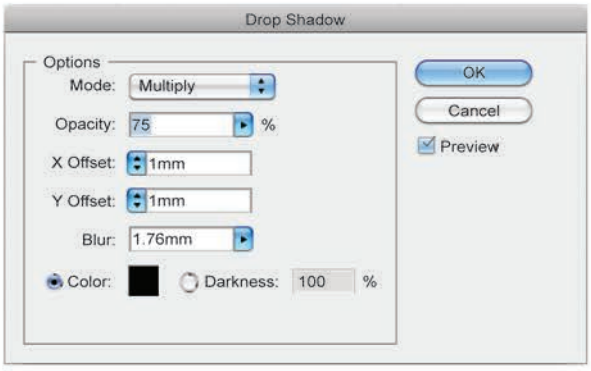
- The pattern repeat in the skirt was achieved by using downloadable free fonts from the Internet
- The paisley pattern is a font (search term 'Paisley' ref page 151, downloading fonts)
- Type out the whole alphabet and select the **Paisley** font from the **Font** library and **Create Outlines** (ref page 147)
- Ungroup the designs and select the designs you wish to use, **Delete** the rest

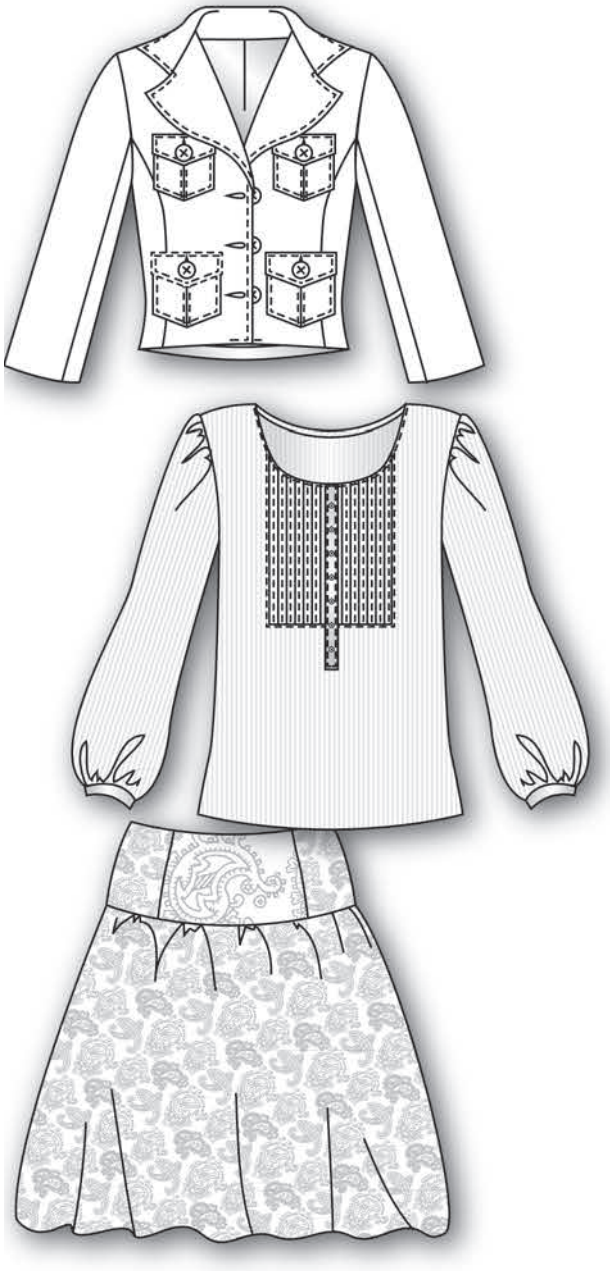


- Create a 20mm square rectangle to create the repeat, you can base this on the same principles as the spot flower repeat on page 119
- Even though there are now three motifs the same principles still apply

- We have drawn up the repeat illustrating the motifs that go beyond the boundary of the repeat in the same colour
- Note the four blue corner motifs, each of these is a quarter of the full motif, the two red motifs are a half of the full motif and the green and orange are also a half
- Remember the transparent boundary box at the back of the print contains the repeat (ref page 77 for troubleshooting)

- Fill the skirt with the pattern repeat and scale the design to suit the size of the sketch (ref page 72)
- This style has a contrast front basque panel. This has been achieved by scaling the pattern repeat up to about 200%





Drop Shadows:

- Once all three styles have been drawn up you can create a drop shadow
- Group each garment individually, this should always be done
- Go to **Effect** in the menu bar

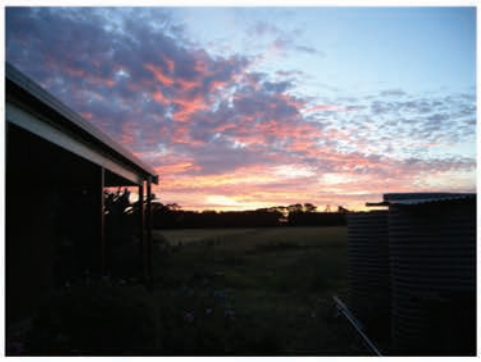
  Stylize → Drop Shadow
- A dialogue box will appear
- Select the options you want and select **Preview** to see the effect

- **Mode:** This works the same way as in the **Transparency** panel
- **Opacity:** The depth of the colour
- **X Offset:** This is the horizontal offset, i.e., how far up or down the shadow is placed
- **Y Offset:** This is the vertical offset, i.e., how far left or right the shadow is placed

In this example the shadow will fall to the right and down; if a subtraction symbol had been placed next to both the numbers the shadow would have fallen to the left and up.

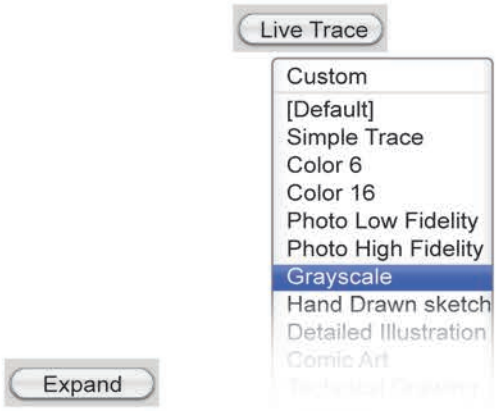
- **Blur:** This controls the blurring on the edge of the shadow
- **Color:** The colour of the shadow can be changed by double-clicking onto the colour option box and a colour picker will appear

- The technical drawings are complete, **Save (Ctrl C/Cmd C)** this file



Digital Photograph: Edited to greyscale and masked

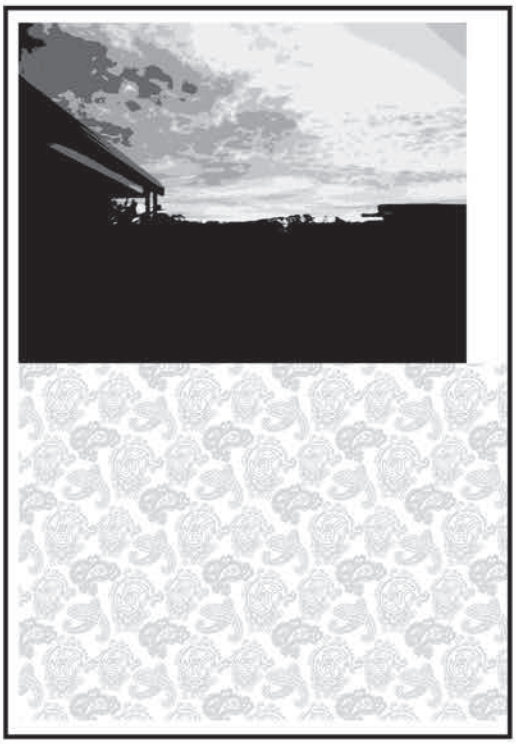
- Open the file containing your digital photographs JPEG or TIFF. The image may be much larger than the A4 page and also a high-resolution image, this is not necessary for this exercise. To reduce the resolution of the photograph which will reduce the file size you can **Export** the file to a **JPEG** file**.** Check that the **File Type** is **JPEG** and **Export** it with the following properties **CMYK, Custom 150 dpi** and save it as a new name: **Story Board 5 Fashion Illustration and Technical Drawing**, so as not to confuse the two files. Close the original file and open up the new file. Save it again as an Illustrator file: **Story Board 5 Fashion Illustration and Technical Drawing.ai**
  This is the main file for Story board 5.
- Before you start change the **Artboard** size on this page to A4 Portrait (ref page 33)
- Select the photograph which is a bitmap image to convert it into an editable vector image
- Click onto the arrow next to **Live Trace** in the **Control** panel and select **Grayscale**



- Once the image is traced, an option to **Expand** the image will appear in the **Control** panel
- Click onto this option and the image will become a vector image
- Deselect the image

- Scale the image to fit the page considering planned layout
- If necessary mask the area needed. Marquee over the area of the image you would like to mask with the **Rectangle (M)** tool.
- Select both the image and the rectangle and, right click the mouse **Make Clipping Mask (Ctrl 7/ Cmd 7)**

- The background image is complete, **Save (Ctrl C/ Cmd C)** this file



Background layer

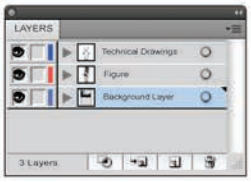
Figure

Technical drawings

Compile the Story Board:

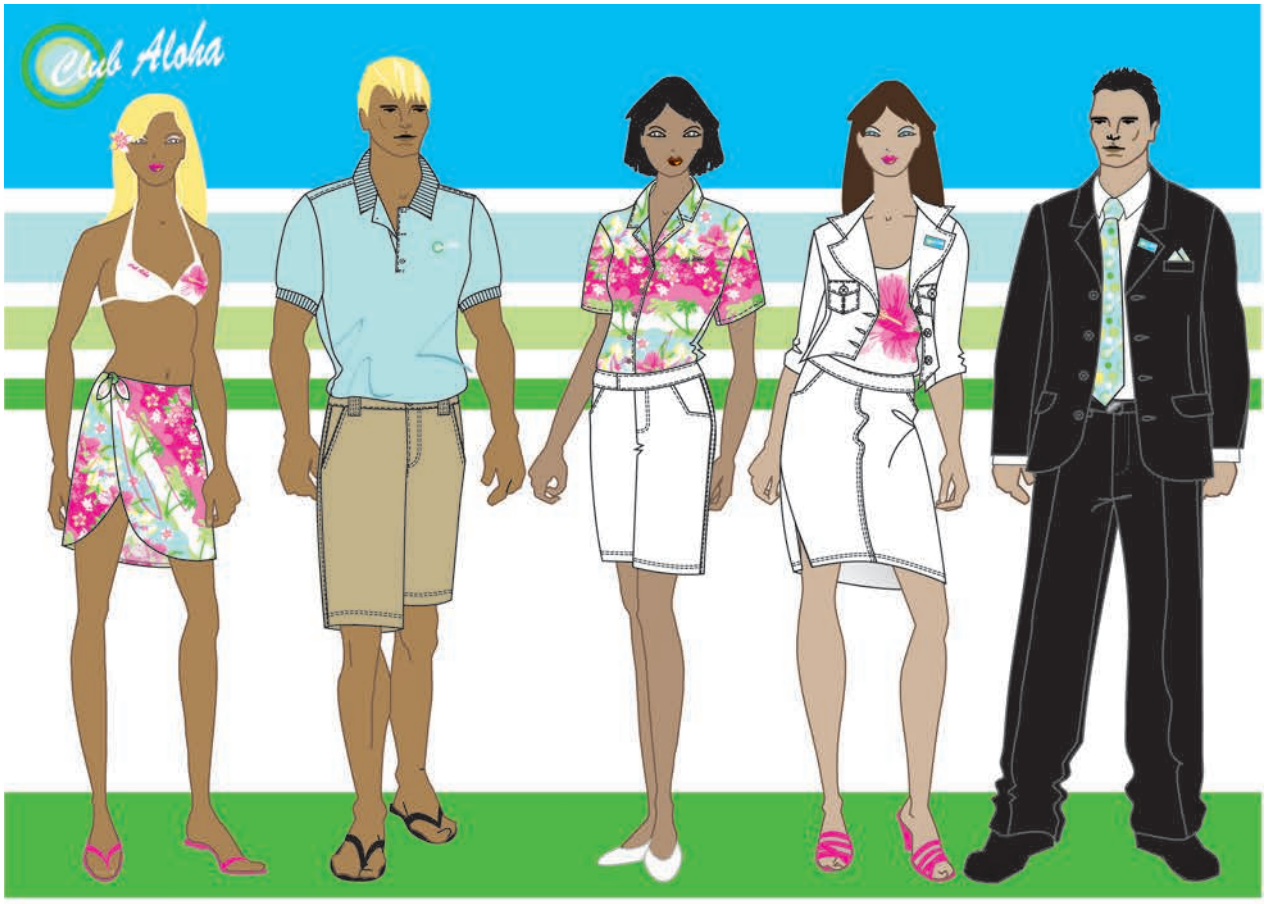
- Add two more layers above the layer the image is on in this file
- Click onto the **New Layer** (⊡) icon in the **Layers** panel
- Open the first two files you created: *Figure and Garment.ai* and *Technical Drawings.ai*
- Select the layer above the image and copy and paste the *'Figure and Garment'* image into this layer
- Select the next layer above that layer and copy the *Technical Drawings* into that layer
- You can close the other two files down
- In the open file click back onto the **Background Layer** and create a rectangle to fill with the Paisley pattern

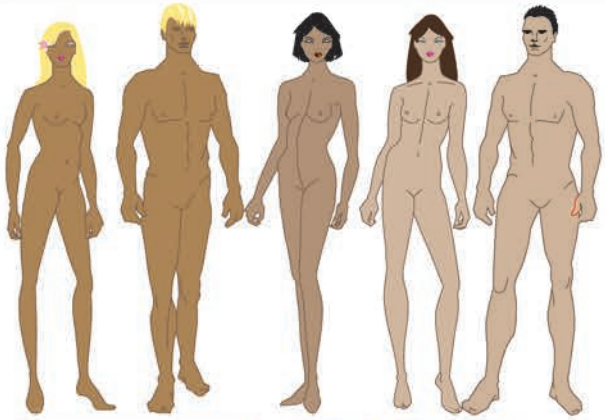
You will find when you copy illustrations from one file to another all the pattern swatches and brushes used in that file will automatically transfer into the current file. This means that the Paisley pattern has been loaded into the Swatches panel of the current file.

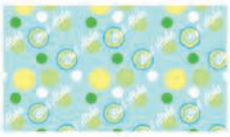


- The storyboard is complete, **Save (Ctrl C/Cmd C)** this file

STORY BOARD 6 – CORPORATE RESORT WEAR

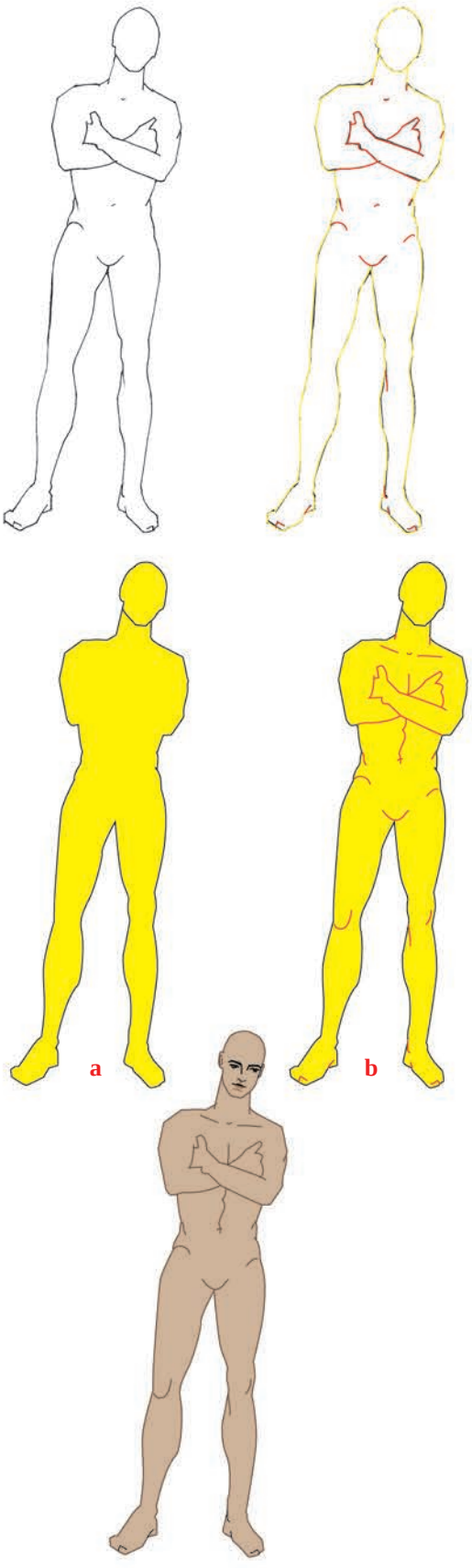






Story Board 6 – Club Aloha Corporate:

- This story board consists of five figures based on the hand-drawn illustrations, developed earlier in the chapter
- A logo, which can also be used in the pattern swatch for the neck tie
- A more complex pattern swatch which uses all the same principles as the Broderie Anglaise design in Chapter 3



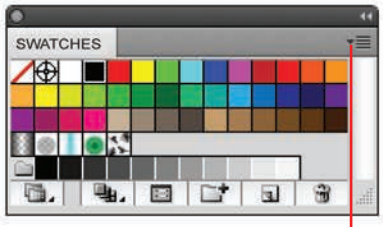
Use a scanned hand sketch as a drawing template:

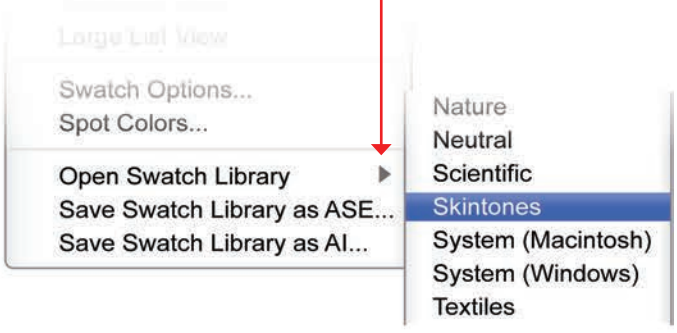
Selection Tool (V)
Direct Selection Tool (A)
Pen Tool (P)
Scissors Tool (C)

In this story board we are going to use the male and female croquis you developed earlier from photographs. We have used a couple of poses and interchanged them. To do this it is easier to draw the vector shapes over the figure rather than use the tracing option. The shapes need to be sitting on top of each other without any gap. You need to be very aware of creating full closed shapes.

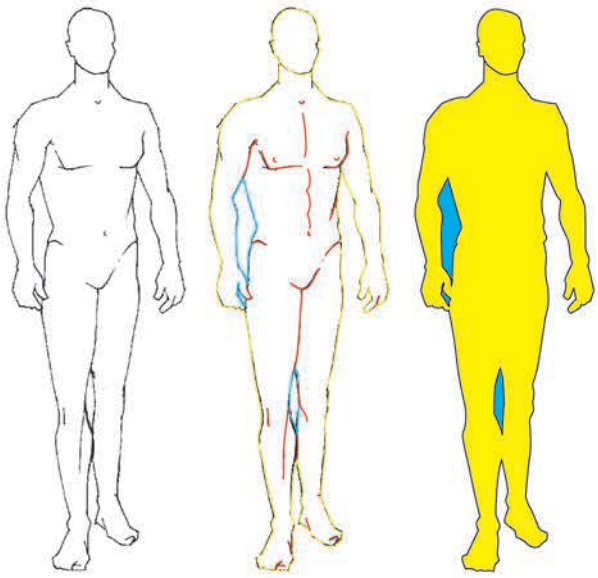
- Open the scanned images of the croquis you have developed
- Lock the scanned figures in a layer and create a new layer to draw on
- Select the **Pen Tool (P)** and first draw around the perimeter of the figure ( ); do not be tempted to draw in details until you have done this **(a)**
- Once that is done, draw all the details inside the shape ( ) **(b)**

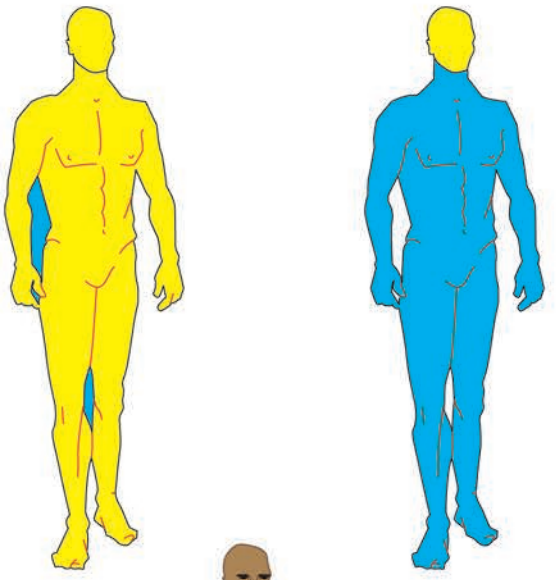
- Add the facial features to the croquis and a flat skin tone to the body. You can find a library of **Skintones** and **Skintone Gradients** in the Swatches libraries





MALE CROQUIS DEVELOPMENT





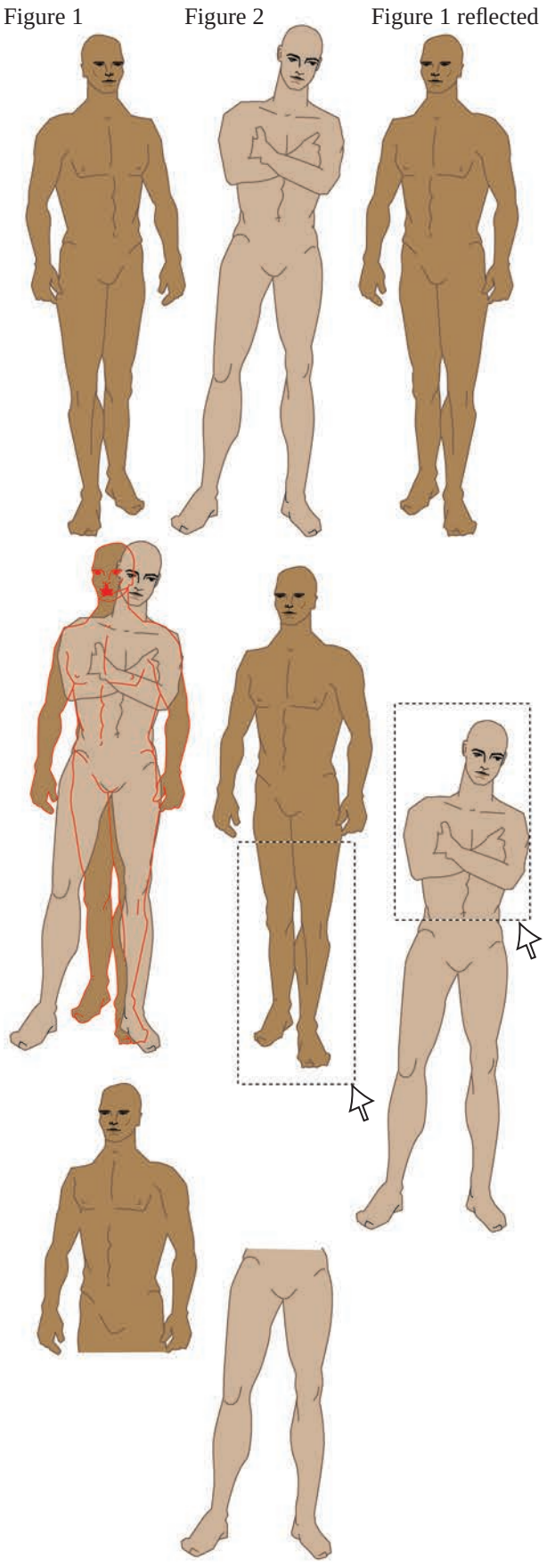
Croquis including *'negative'* spaces:

In this example we are demonstrating how you should manage a figure where there are shapes within the figure that need to be cut out.

- Following the instructions for the first croquis on page 189 draw around the perimeter of the figure ( )
- Draw in the cut-out shape details ( )
- Draw in the line details ( )
- Select the solid perimeter shape ( ) and the negative area shapes ( )

Remember holding the Shift key at the same time as clicking onto the shape will allow you to pick up more than one shape at a time.

- Go to the **Pathfinder** panel and click onto the **Exclude Tool (** **)** in the **Pathfinder** panel (ref page 20)
- If the red line details disappear once you do this simply arrange the layer order and send this layer to the back **(Shift Ctrl [/Shift Cmd [)**
- Add the facial features to the croquis



Interchanging the poses of the croquis:

- Create a new layer and make a copy of both figures **(Ctrl C, Ctrl V/Cmd C, Cmd V)**
- Select the copies and move them onto the new layer (ref page 39). Lock the second layer to protect the original drawings

Step 1: Reflect figure 1

- Reflect figure 1
- Place figure 2 on top of figure 1
- Try to line up the hips, this may require a little manipulation

Step 2: Delete the legs of figure 1

- Click onto the **Direct selection Tool (A)** and marquee over the legs of figure 1 and delete that section

*Remember only press delete **once** or you will delete the balance of the croquis. Take note of 'Active' and 'Inactive' anchor points (ref page 12).*

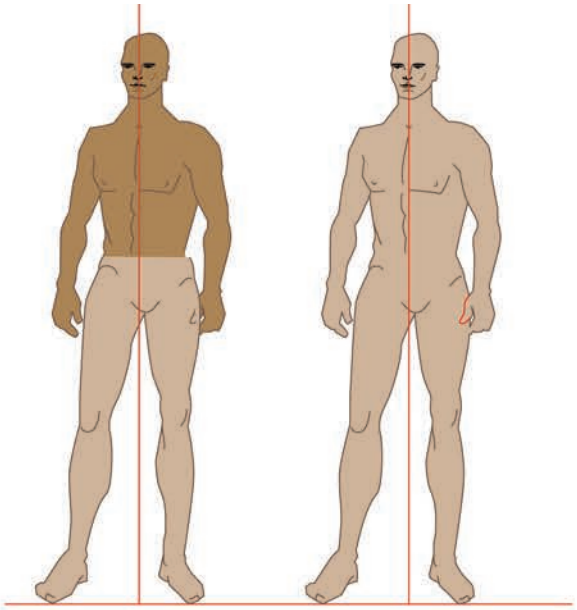
Step 3: Delete the torso of figure 2

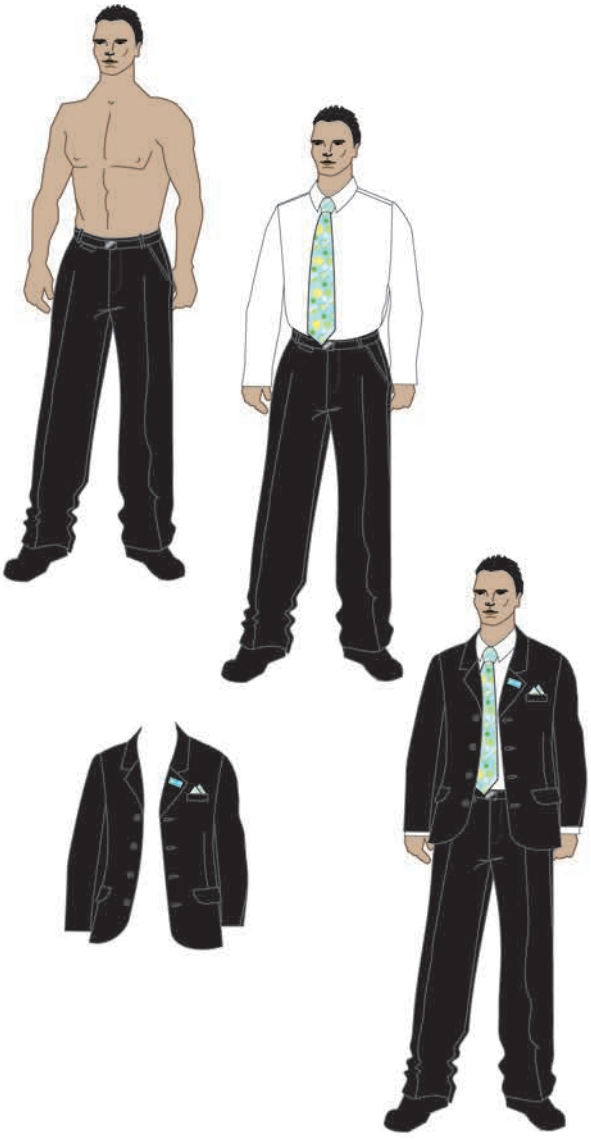
- Click onto the **Direct Selection Tool (A)** and marquee over the torso of figure 1 and delete that section

!REMEMBER!

Save the file: **Ctrl S/Cmd S**

JOIN THE LEGS AND TORSO, DRESS FIGURE





Step 4: Join the legs to the torso

- Check the weight and balance of the legs and if need be rotate them to get the weight suitable to the pose. Use the vertical **Balance Line** from the **Pit of the Neck** and the horizontal floor line to do this
- Zoom in close and cut the torso or leg lines at the junction where they meet, delete the overlap and join the two lines. Do this on both sides

*Remember to **Ungroup** the torso and the legs before you try to join the anchor points (ref page 30, Troubleshoot Average and Join).*

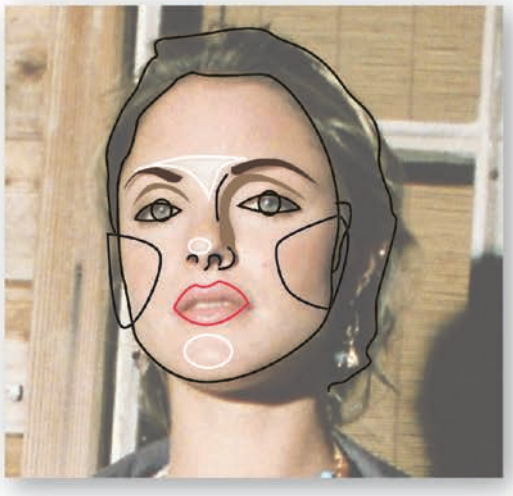
- Put some hair on the new croquis and group the figure

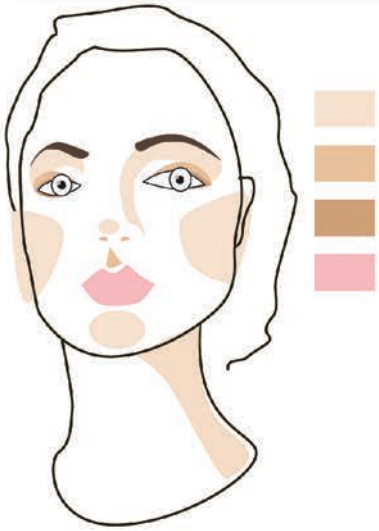
Step 5: Dress the figure

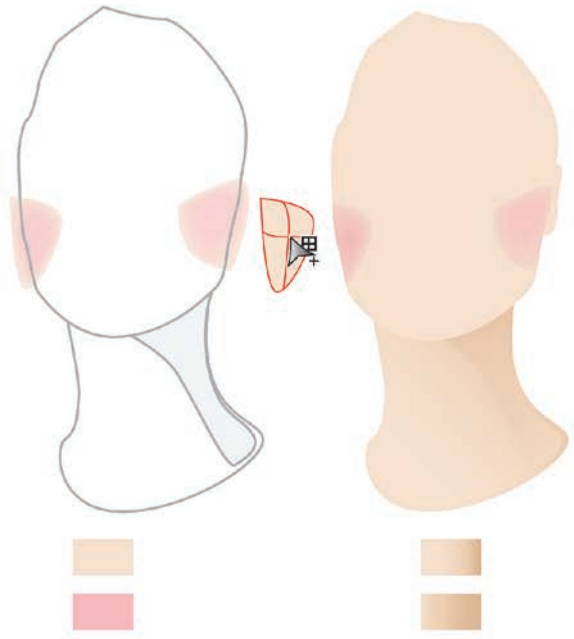
Remember, when drawing in Adobe Illustrator, the first thing you draw is furthest back in the layering of objects order.

a: Draw the shoes first
b: The trousers
c: The shirt using the trousers as a guide
d: Bring the trousers in front of the shirt and then draw the tie
e: Draw the front jacket including the left sleeve
f: Draw the back of the jacket, using the front of the jacket as a guide, group the front jacket and left sleeve – do not include the back
g: Send the back of the jacket behind the figure
h: The last item to draw will be the right sleeve, using the right arm as a guide. Group all of these so that the arm is included with the sleeve and the hand is visible when placing the sleeve onto the figure

Step 6: Marquee over the whole figure and group it







Create a face from a photograph:

*As a fashion designer your primary role when creating illustrations is to **sell garments**. For this reason we do not emphasise faces too much, the simpler the better. Even no detail is acceptable depending on your style of drawing.*

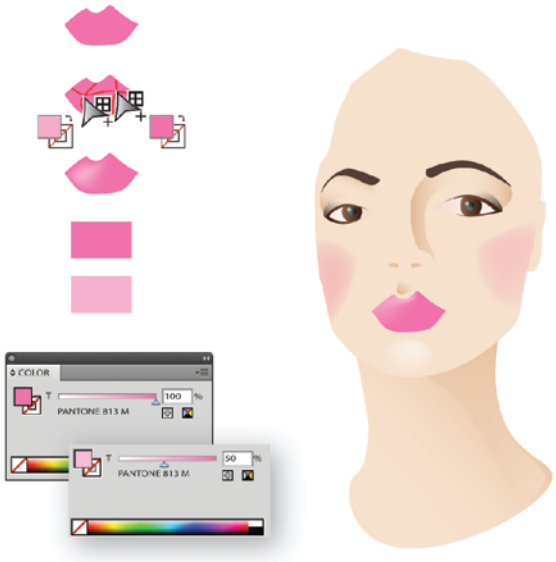
Following are instructions to create a face based on a photograph. We have used the face from the photograph we based our female croquis on:

- Scale the face to a good workable size. If the resolution of the photograph is low this does not work too well as the image will be blurry
- Draw the shape of the face and then the details Note how we have mainly used a stroke and always created closed shapes
- It is always risky to draw an open mouth, we have created one shape for the lips
- Once that is done move a copy off the photograph and tidy it up
- Select the basic colours from the *Skintones Swatches Library*

You will notice that the cheeks go beyond the face outline and the irises go beyond the eye outline. The reason we have done this with the cheeks is to create a softer edge when we add the blush. The full iris is never visible in the eye so we are masking part of it.

- We have used the mesh tool to add blush to the cheeks
- The shape has the flesh tone of the rest of the face in it and we have selected a pink from the **Skintones** library, added blush to both cheeks. We have masked the cheeks with the face outline and then made the rest of the face the same skin tone. This gives the face a very soft blush

- We have achieved the shadows on the neck by using two variations of a linear gradient using the skin tones in the gradient (ref page 116, Gradient fills)
- The second shape on top of the main shape has a darker gradient angled to have the darker side of the gradient sit under the jaw line



Face details:

Eyes:

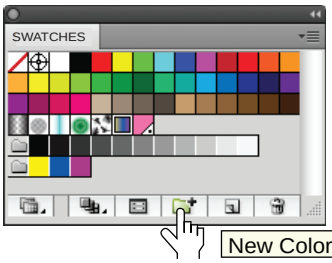
- We have separated the eye from the rest of the components and added gradient fills to each shape
- See the labels next to each gradient
- The iris and pupil are masked with the white of the eye, we have put a gradient fill in this with no stroke
- Once one side is done, do the opposite side paying careful attention to where the dark side of the gradient goes:
- You will notice for the eyelids and the brow bones the shading is to the outside of the eyes
- For the irises and pupils the light comes from the same direction, the left

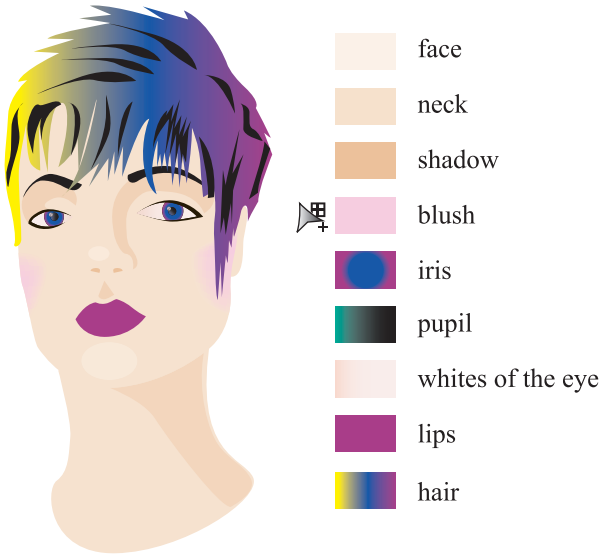
Lips:

- The highlight on the lips was created with the **Mesh Tool (U)**. We used a **Pantone** colour swatch for the main lip colour. Go to the **Swatches** panel, click onto the down arrow and a list of libraries will come up (ref page 189)
- Choose **Color Books** ⟶ **PANTONE Process Uncoated**
- The highlight is the same colour but with 50% colour saturation, this can be done in the **Color** panel

Hair:

- The hairstyle was achieved with the **Blend Tool (W)**
- We searched the Internet for a hairstyle to suit the image and copied the style
  1. Create a single shape for the silhouette of the hair
  2. Draw the highlight strands of hair. For each section we did three strands spaced out and depending on the distance between strands we added steps in the **Blend Tool** options (ref page 46, **Blend Tool**)
  3. By varying the colour of the lines we achieved the varigated look of the strands
  4. We then *Expanded* the blended lines (ref page 47-49, expand, troubleshoot) and added one of the **Stroke Profiles** (ref page 90) to get the line to look more natural
  5. Save the file **(Ctrl C/Cmd C)**



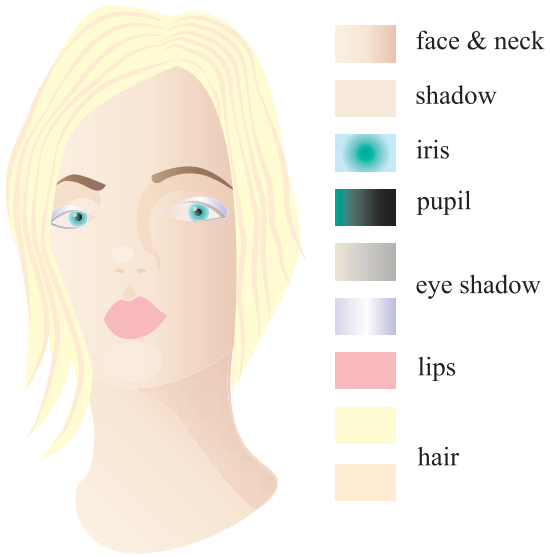


Face Variations:

The two variations we have done are based on the same face using slightly different techniques on each.

Example 2 has the following differences:

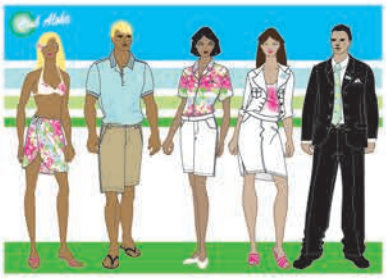
1. The hair has a gradient from one of the swatch libraries and we have used this as the base for all other colours. We have extracted the single colours in the gradient hair and clicking onto by selecting it and the *'New Color Group'* option in the **Swatches** panel. This places the extracted colours into the **Swatches** panel
2. All the flesh tones are flat colour including the shadows. The shadows have a degree of transparency (ref page 141, rendering male croquis)



Example 3 has the following differences:

1. The hair was created in the same way as the first example
2. The face has a linear gradient fill
3. The shadows are flat transparent colour

SUMMARY CHAPTER 5



Key Points in Chapter 5:

In Chapter 5 we conclude with six example story boards going through how to apply your Adobe Illustrator knowledge. We also introduce you to some basic Adobe Photoshop techniques.

To summarise:

Story board 1:

1. Male croquis development
2. Digital photo manipulation
3. Apply the scribble effect
4. Creating a vector image from a font

Story board 2:

1. Placement print development
2. Pencil Tool
3. Download fonts and clip art

Story board 3:

1. Denim colours and washes

Story board 4:

1. Introduction to Adobe Photoshop
2. Filling a scanned image
3. Gradient options
4. Colour change of a scanned fabric
5. Edit a digital image

Story board 5:

1. Cut out a portion of a photograph in Photoshop
2. Combine Photoshop and Illustrator files
3. Technical drawings with pattern swatches
4. Create a vector image of a digital photograph

Story board 6:

1. Changing the pose of croquis drawn in Adobe Illustrator

Faces:

1. Draw a face based on a photograph
2. Add detail and work with gradient swatches

ADOBE ILLUSTRATOR / ADOBE PHOTOSHOP

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